STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 115643

TO: Hong Liu Location: REM-5C11 Art Unit: 1624 Friday, March 05, 2004 Case Serial Number: 09/669298	From: Barb O'Bryen Location: Biotech-Chem Library Remsen E01A69 Phone: 571-272-2518 barbara.obryen@uspto.gov

5C18

BOB

Search Notes

Search and Information Resources Administration

STIC SEARCH RESULTS FEEDBACK FORM

Biotech-Chem Library

Questions about the scope or the results of the search? Contact ***the searcher or contact:***

Mary Hale, Information Branch Supervisor
Remsen Bldg. 01 D86
571-272-2507

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* ☐ *Example: 1610*
- *Relevant prior art **found**, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

  Types of relevant prior art found:
  - ☐ Foreign Patent(s)
  - ☐ Non-Patent Literature
    (journal articles, conference proceedings, new product announcements etc.)
- *Relevant prior art **not found:***
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC-Biotech-Chem Library Remsen Bldg.

```
=> fil reg; d stat que l6; fil capl; d que nos l7; fil uspatf; d que nos l8
FILE 'REGISTRY' ENTERED AT 12:33:07 ON 05 MAR 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    3 MAR 2004  HIGHEST RN 658036-92-1
DICTIONARY FILE UPDATES:   3 MAR 2004  HIGHEST RN 658036-92-1

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

L1                STR
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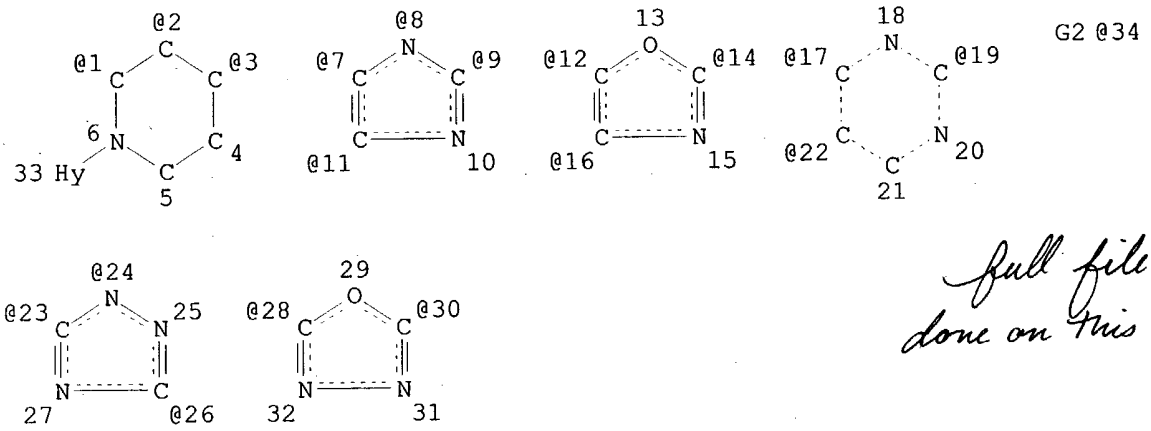

Full file search done on this structure

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VPA 34-1/2/3 U
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DEFAULT MLEVEL IS ATOM
MLEVEL  IS CLASS  AT  33
GGCAT   IS UNS  AT  33
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  34

STEREO ATTRIBUTES: NONE
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L3              STR
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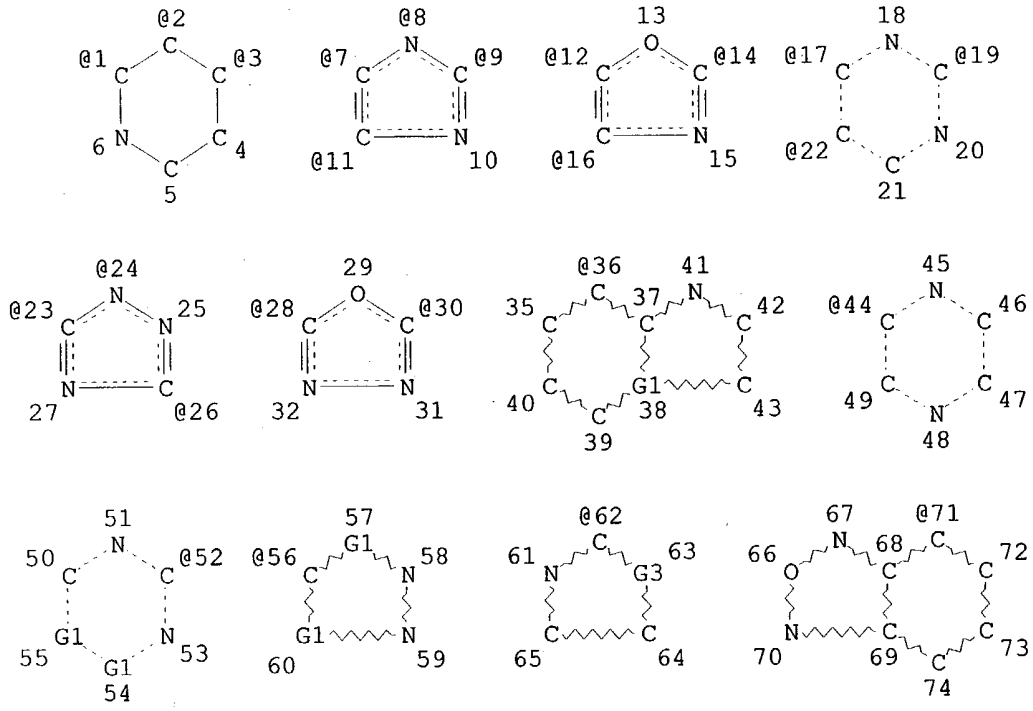

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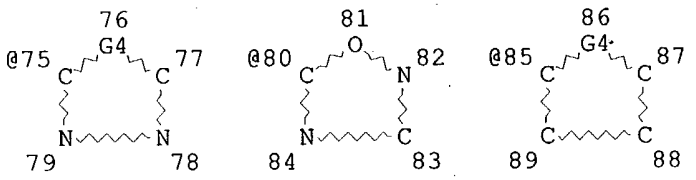
Page 1-A



G5 90

Page 2-A
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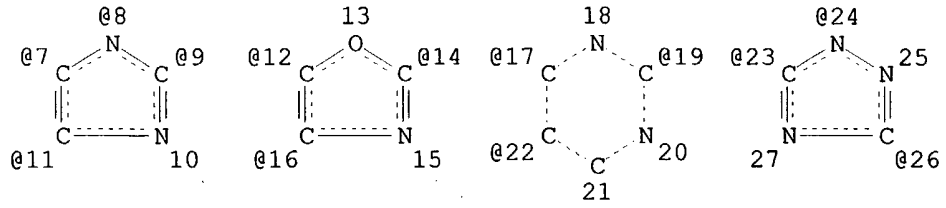
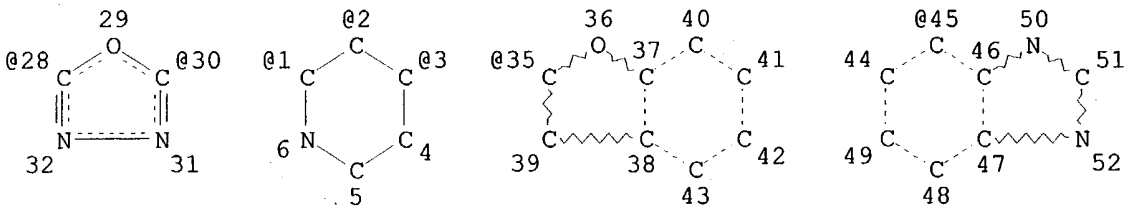
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

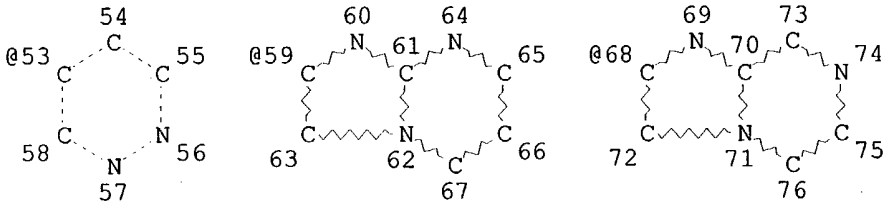
GRAPH ATTRIBUTES:
RSPEC 7
NUMBER OF NODES IS 89

STEREO ATTRIBUTES: NONE
L4 STR

subset search done looking for this structure or structure on next page (R, more narrowly defined)







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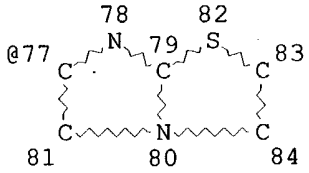

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VPA 34-1/2/3 U
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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 7
NUMBER OF NODES IS 84

STEREO ATTRIBUTES: NONE
L6 390 SEA FILE=REGISTRY SUB=L2 SSS FUL (L3 OR L4)

100.0% PROCESSED 584 ITERATIONS 390 ANSWERS
SEARCH TIME: 00.00.01

FILE 'CAPLUS' ENTERED AT 12:33:07 ON 05 MAR 2004

FILE COVERS 1907 - 5 Mar 2004 VOL 140 ISS 11
FILE LAST UPDATED: 4 Mar 2004 (20040304/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

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L1             STR
L2          584 SEA FILE=REGISTRY SSS FUL L1
L3             STR
L4             STR
L6          390 SEA FILE=REGISTRY SUB=L2 SSS FUL (L3 OR L4)
L7           26 SEA FILE=CAPLUS ABB=ON  L6
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FILE 'USPATFULL' ENTERED AT 12:33:07 ON 05 MAR 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 4 Mar 2004 (20040304/PD)
FILE LAST UPDATED: 4 Mar 2004 (20040304/ED)
HIGHEST GRANTED PATENT NUMBER: US6701528
HIGHEST APPLICATION PUBLICATION NUMBER: US2004045070
CA INDEXING IS CURRENT THROUGH 4 Mar 2004 (20040304/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 4 Mar 2004 (20040304/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2003
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2003

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>>>  USPAT2 is now available.  USPATFULL contains full text of the     <<<
>>>  original, i.e., the earliest published granted patents or         <<<
>>>  applications.  USPAT2 contains full text of the latest US         <<<
>>>  publications, starting in 2001, for the inventions covered in     <<<
>>>  USPATFULL.  A USPATFULL record contains not only the original     <<<
>>>  published document but also a list of any subsequent              <<<
>>>  publications.  The publication number, patent kind code, and      <<<
>>>  publication date for all the US publications for an invention     <<<
>>>  are displayed in the PI (Patent Information) field of USPATFULL   <<<
>>>  records and may be searched in standard search fields, e.g., /PN, <<<
>>>  /PK, etc.                                                         <<<

>>>  USPATFULL and USPAT2 can be accessed and searched together        <<<
>>>  through the new cluster USPATALL.  Type FILE USPATALL to          <<<
>>>  enter this cluster.                                               <<<
>>>                                                                    <<<
>>>  Use USPATALL when searching terms such as patent assignees,       <<<
>>>  classifications, or claims, that may potentially change from     <<<
>>>  the earliest to the latest publication.                           <<<
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This file contains CAS Registry Numbers for easy and accurate substance identification.

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L1              STR
L2          584 SEA FILE=REGISTRY SSS FUL L1
L3              STR
L4              STR
L6          390 SEA FILE=REGISTRY SUB=L2 SSS FUL (L3 OR L4)
L8           13 SEA FILE=USPATFULL ABB=ON  L6


=> dup rem l7,l8
FILE 'CAPLUS' ENTERED AT 12:33:13 ON 05 MAR 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE 'USPATFULL' ENTERED AT 12:33:13 ON 05 MAR 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)
PROCESSING COMPLETED FOR L7
PROCESSING COMPLETED FOR L8
L10          38 DUP REM L7 L8 (1 DUPLICATE REMOVED)
                ANSWERS '1-26' FROM FILE CAPLUS
                ANSWERS '27-38' FROM FILE USPATFULL

=> d ibib ed abs hitstr 1-38; fil cao; d que nos 19; fil hom

L10  ANSWER 1 OF 38  CAPLUS  COPYRIGHT 2004 ACS on STN DUPLICATE 1
ACCESSION NUMBER:         2002:444492  CAPLUS
DOCUMENT NUMBER:          137:20295
TITLE:                    Preparation of benz[cd]indol-2-imines and -amines as
                          inhibitors of farnesyl protein transferase.
INVENTOR(S):              Ayral-Kaloustian, Semiramis; Kitchen, Douglas Bruce;
                          Shavnya, Andrei
PATENT ASSIGNEE(S):       American Cyanamid Company, USA
SOURCE:                   U.S., 13 pp.
                          CODEN: USXXAM
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE          APPLICATION NO.   DATE
     ---------------   ----  --------      ---------------   --------
     US 6403581         B1   20020611      US 2001-765911    20010119
PRIORITY APPLN. INFO.:                   US 2000-266306P   P 20000119
                                         US 2000-487517    A 20000119

OTHER SOURCE(S):          MARPAT 137:20295
ED   Entered STN:  13 Jun 2002
GI
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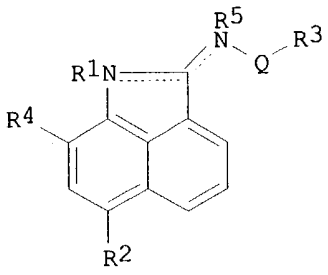
ED is a new field in some STN files, that which provides the date that some portion of the record became available/searchable on STN



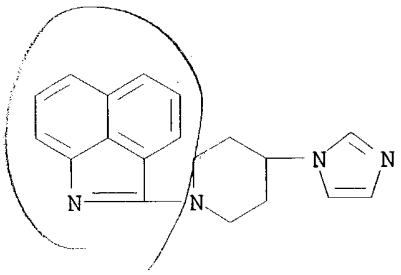
I

AB Title compds. [I; dotted lines = optional double bonds; R1 = H, alkyl, Ph, Ph2CH, pyridinylalkyl, cyanoalkyl, diethylaminoalkyl, etc.; R2 = alkoxy, CF3, halo; R3 = H, (substituted) heterocyclyl; R4 = H, halo, alkyl; R5 = H, alkyl; Q = (substituted) (CH2)m interrupted by CH:CH, C.tplbond.C, O, S, SO, SO2, NH, etc.; m = 1-12], were prepd. Thus, N-[3-(1H-imidazol-1-yl)propyl]-6-iodobenz[cd]indol-2-amine (prepn. given) was stirred with NaH in DMF at 0.degree. followed by addn. of KI and 4-chlorobenzyl chloride and warming to 20.degree. to give N-[1-(4-chlorobenzyl)-6-iodobenzo[cd]indol-2-(1H)-ylidene]-3-(1H-imidazol-1-yl)-1-propanamine. I inhibited FPTase with IC50 = 0.10-6.70 .mu.M using H-Ras as farnesylation substrate.

IT **434956-47-5P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of benz[cd]indol-2-imines and -amines as inhibitors of farnesyl protein transferase)

RN 434956-47-5 CAPLUS

CN Benz[cd]indole, 2-[4-(1H-imidazol-1-yl)-1-piperidinyl]-, monohydriodide (9CI) (CA INDEX NAME)



● HI

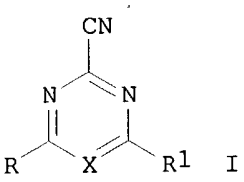
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:2865 CAPLUS
DOCUMENT NUMBER: 140:77167
TITLE: Preparation and new use of pyrimidine- or triazine-2-carbonitriles for treating diseases associated with cysteine protease activity
INVENTOR(S): Bailey, Andrew; Pairaudeau, Garry; Patel, Anil; Thom, Stephen
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004000819	A1	20031231	WO 2003-SE1078	20030623

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG,

KZ, MD, RU, TJ
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: SE 2002-1976 A 20020624
OTHER SOURCE(S): MARPAT 140:77167
ED Entered STN: 02 Jan 2004
GI

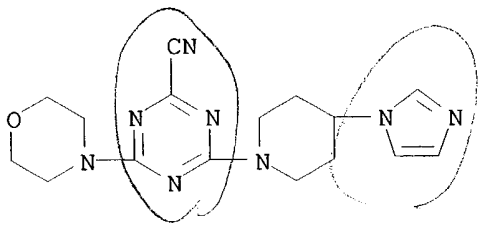


I

AB The title compds. [I; X = N, CA (wherein A = H, halo, CHR2R3, OR2, NR2R3, SR2; R2, R3 = H, alkyl, cycloalkyl, etc.); R, R1 = Y(CH2)pR9 (p = 0-3; Y = O, NR10; R10 = H, alkyl, cycloalkyl; R9 = H, alkyl which optionally contain one or more O, S or NH, etc.), NR10(CHR10)CONR2R3, NR10(CH2)qCONR2R3 (q = 1-3), etc.], useful for treating diseases assocd. with cysteine protease activity (no data), were prepd. and formulated. E.g., a 3-step synthesis of 4-[(4-chlorophenyl)amino]-6-(dimethylamino)-1,3,5-triazine-2-carbonitrile (starting from 4-chloroaniline and trichlorotriazine), was given. The compds. I are reversible inhibitors of cysteine proteases S, K, F, L and B. Of particular interest are diseases assocd. with Cathepsin S.

IT **639854-50-5P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and new use of pyrimidine- or triazine-2-carbonitriles for treating diseases assocd. with cysteine protease activity)

RN 639854-50-5 CAPLUS
CN 1,3,5-Triazine-2-carbonitrile, 4-[4-(1H-imidazol-1-yl)-1-piperidinyl]-6-(4-morpholinyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

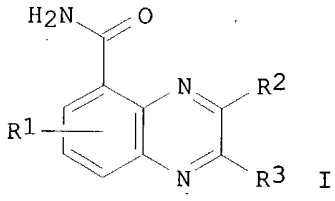
L10 ANSWER 3 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:591178 CAPLUS
DOCUMENT NUMBER: 139:149653
TITLE: Preparation of quinoxaline derivatives as poly(ADP-ribose) polymerase (PARP) inhibitors for treatment of rheumatoid arthritis
INVENTOR(S): Takayama, Kazuhisa; Masuda, Naoyuki; Hondo, Takeshi; Hirabayashi, Ryoji; Seki, Norio; Koga, Yuji; Naito, Ryo; Okamoto, Yoshinori; Kaizawa, Hiroyuki; Okuda, Takao; Okada, Youhei; Takeuchi, Makoto

PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003062234	A1	20030731	WO 2003-JP545	20030122

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: JP 2002-14121 A 20020123
OTHER SOURCE(S): MARPAT 139:149653
ED Entered STN: 01 Aug 2003
GI



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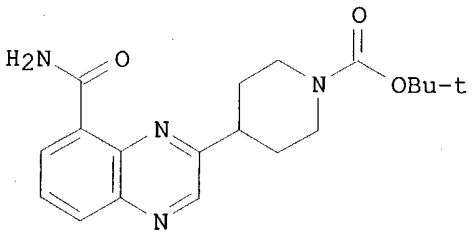
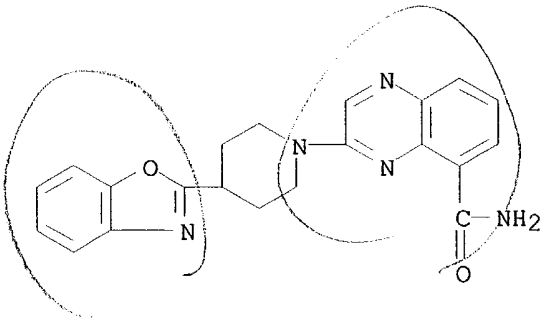


II

AB The title quinoxaline derivs. with general formula of I [wherein wherein R1 = H, alkoxy, halo, or (un)substituted alkyl; R2 = halo, (un)substituted OH, SH, or amino, etc.; R3 = H, OH, halo, (un)substituted cycloalkyl, cycloalkenyl, heterocyclyl, or alkyl, etc.; with exclusions] and pharmaceutically acceptable salts thereof are prepd. as poly(ADP-ribose) polymerase (PARP) inhibitors for the treatment of rheumatoid arthritis. For example, the quinoxalinecarboxamide II was prepd. in a four-step synthesis starting from N-(tert-butoxycarbonyl)isonipecotic acid comprising ring formation reaction. Some of compds. I showed IC50 of 3.8-72 nM against human PARP.

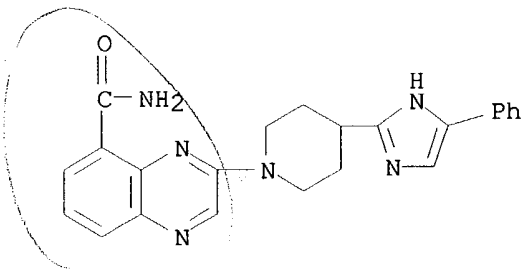
IT **569666-08-6P 569666-12-2P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; prepn. of quinoxaline derivs. as PARP inhibitors for treatment of rheumatoid arthritis)

RN 569666-08-6 CAPLUS
CN 5-Quinoxalinecarboxamide, 3-[4-(2-benzoxazolyl)-1-piperidinyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 569666-12-2 CAPLUS
CN 5-Quinoxalinecarboxamide, 3-[4-(4-phenyl-1H-imidazol-2-yl)-1-piperidinyl]-(9CI) (CA INDEX NAME)



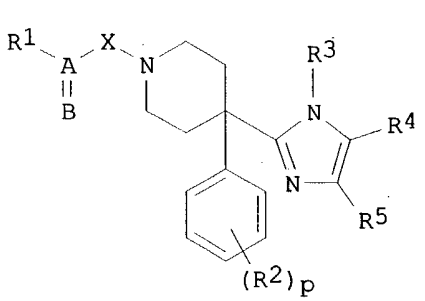
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:376549 CAPLUS
DOCUMENT NUMBER: 138:385306
TITLE: Preparation of substituted 4-phenyl-4-(1H-imidazol-2-yl)piperidine derivatives for reducing ischemic damage
INVENTOR(S): Janssens, Frans Eduard; Leenaerts, Joseph Elisabeth; Fernandez-Gadea, Francisco Javier; Gomez-Sanchez, Antonio; Flameng, Willem; Herijgers, Paul Joannes Ludovicus; Meert, Theo Frans; Borgers, Marcel J. M.
PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.
SOURCE: PCT Int. Appl., 75 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003039440	A2	20030515	WO 2002-EP11371	20021010
WO 2003039440	A3	20031218		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,

PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: EP 2001-203927 A 20011015
OTHER SOURCE(S): MARPAT 138:385306
ED Entered STN: 16 May 2003
GI



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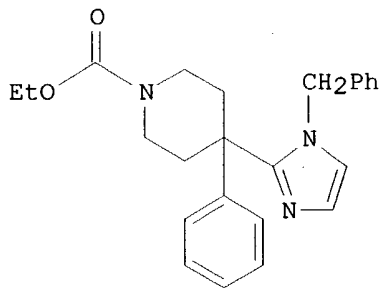
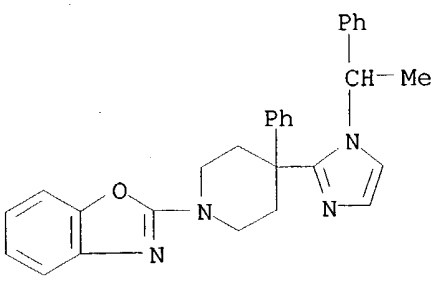


II

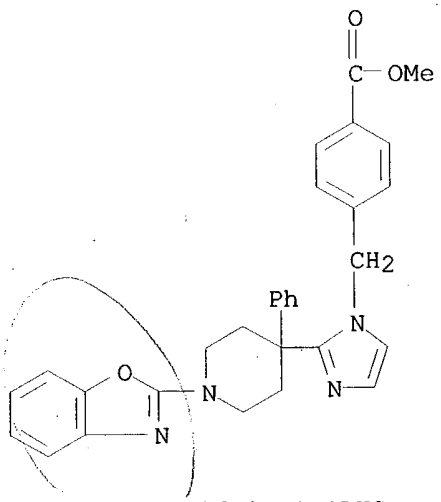
AB Title compds. I [A=B = bivalent .pi.-bond radical; X = covalent bond, alkyl; R1 = H, alkoxy, alkylcarbonyloxy, aryloxy, etc.; R2 = OH, alkoxy, alkylcarbonyloxy, phenyloxy, etc.; R3 = alkyl, aryl, heteroaryl, etc.; R4-5 = H, alkyl, carboxy, aminocarbonyl, etc.; p = 0-3] are prepd. N-[chloro(1-methyl-4-phenyl-4-piperidinyl)methylene]benzenemethanamine.bul .HCl (100%). Addn. of dimethoxyethanamine in DMF to give the piperidinecarboximidamide (100%), followed by redn. with NaOH provided 1-methyl-4-phenyl-4-[1-(phenylmethyl)-1H-imidazol-2-yl]piperidine (25%). Amidation with Et chloroformate in the presence of K2CO3 and DEA in toluene gave II (86 %). All compds. of the invention showed a pIC50 = 7-8 for the .delta.-opioid receptor and a pIC50 .ltoreq. 6 for the .mu.- and .kappa.-receptor in [35]GTP.gamma.S radioligand binding assays. I are used for the treatment of ischemic damage to an organ (heart, brain) and for the prevention of coronary artery diseases by inducing a cardioprotective effect and the treatment and prevention of stroke.

IT **516520-92-6P**, 1-(Benzoxazol-2-yl)-4-phenyl-4-(1-(1-(phenyl)ethyl)imidazol-2-yl)piperidine **516520-94-8P** **516520-96-0P**, 1-(Pyrimidin-2-yl)-4-phenyl-4-(1-(benzyl)imidazol-2-yl)piperidine **516520-98-2P**, 1-(1-Methylbenzimidazol-2-yl)-4-phenyl-4-(1-(benzyl)imidazol-2-yl)piperidine **516521-00-9P**, 1-(Thiazol-2-yl)-4-phenyl-4-(1-(benzyl)imidazol-2-yl)piperidine **516521-02-1P**, 1-(Benzothiazol-2-yl)-4-phenyl-4-(1-(benzyl)imidazol-2-yl)piperidine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of substituted 4-Ph-4-(1H-imidazol-2-yl)piperidine derivs. as opioid receptor ligands for reducing ischemic damage)

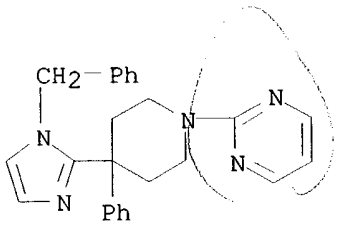
RN 516520-92-6 CAPLUS
CN Benzoxazole, 2-[4-phenyl-4-[1-(1-phenylethyl)-1H-imidazol-2-yl]-1-piperidinyl]- (9CI) (CA INDEX NAME)



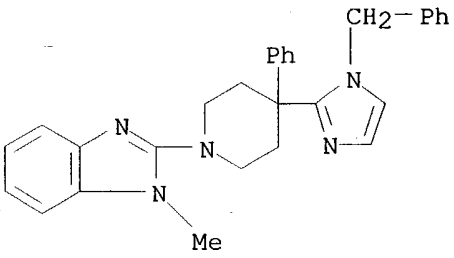
RN 516520-94-8 CAPLUS
CN Benzoic acid, 4-[[2-[1-(2-benzoxazolyl)-4-phenyl-4-piperidinyl]-1H-imidazol-1-yl]methyl]-, methyl ester (9CI) (CA INDEX NAME)



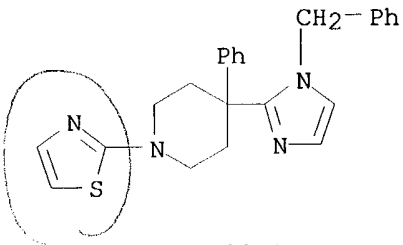
RN 516520-96-0 CAPLUS
CN Pyrimidine, 2-[4-phenyl-4-[1-(phenylmethyl)-1H-imidazol-2-yl]-1-piperidinyl]- (9CI) (CA INDEX NAME)



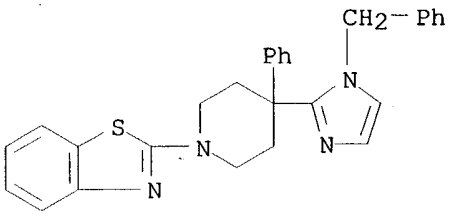
RN 516520-98-2 CAPLUS
CN 1H-Benzimidazole, 1-methyl-2-[4-phenyl-4-[1-(phenylmethyl)-1H-imidazol-2-yl]-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 516521-00-9 CAPLUS
CN Piperidine, 4-phenyl-4-[1-(phenylmethyl)-1H-imidazol-2-yl]-1-(2-thiazolyl)- (9CI) (CA INDEX NAME)



RN 516521-02-1 CAPLUS
CN Benzothiazole, 2-[4-phenyl-4-[1-(phenylmethyl)-1H-imidazol-2-yl]-1-piperidinyl]- (9CI) (CA INDEX NAME)



L10 ANSWER 5 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:319889 CAPLUS
DOCUMENT NUMBER: 138:338147
TITLE: Preparation of 4-phenyl-4-[1H-imidazol-2-yl]piperidine derivatives as selective non-peptide .delta.-opioid agonists for treatment of pain
INVENTOR(S): Janssens, Frans Eduard; Leenaerts, Joseph Elisabeth; Fernandez-Gadea, Francisco Javier; Gomez-Sanchez, Antonio; Meert, Theo Frans
PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

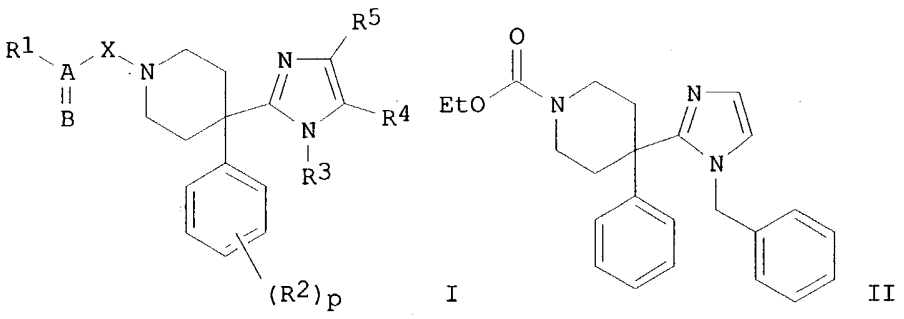
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003033486	A1	20030424	WO 2002-EP11372	20021010

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,
RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG

PRIORITY APPLN. INFO.: EP 2001-203926 A 20011015
OTHER SOURCE(S): MARPAT 138:338147
ED Entered STN: 25 Apr 2003
GI



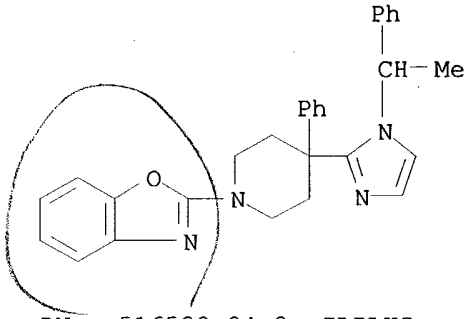
I II

AB Title compds. I [wherein A=B = bivalent .pi.-bonded radical, such as CO or SO2; X = bond, CH2, or CH2CH2; R1 = H, alkoxy, alkanoyloxy, (hetero)aryloxy, heterocyclyl(carbonyl)oxy, (hetero)aroyloxy, (hetero)arylalkoxy, heterocyclylalkoxy, (halo)alkyl, alkoxyalkyl, (hetero)arylalkyl, heterocyclylalkyl, (hetero)aryl, heterocyclyl, (alkyl)thio, (hetero)arylthio, heterocyclylthio, or NR9R10; or R1A=B = (un)substituted carbocyclic, heterocyclic, or (hetero)aryl ring; R2 = OH, alkoxy, alkanoyloxy, phenoxy, benzoyloxy, halo, CN, (halo)alkyl, alkoxyalkyl, CHO, CO2H, alkanoyl, alkoxycarbonyl, NH2CO, (di)alkylaminocarbonyl, Ph, NO2, NH2, (di)alkylamino, or (alkyl)thio; R3 = alkyl, (hetero)aryl(alkyl), heterocyclyl(alkyl), (hetero)arylalkenyl, or heterocyclylalkenyl; R4 and R5 = independently H, alkyl, CO2H, NH2CO, alkoxycarbonyl, halo, or hydroxyalkyl; p = 0-3; and pharmaceutically acceptable salts, stereoisomers, tautomers, and N-oxides thereof] were prepd. as selective non-peptide .delta.-opioid agonists. In particular are claimed compds. (I) in which A=B = CO or SO2; X = a bond; R1 = alkoxy(alkyl) aryl, or NR9R10, wherein R9 and R10 = independently are H or aryl; or R1A=B = benzoxazolyl; p = 0; R3 = benzyl optionally substituted with hydroxy, alkyl, or alkoxycarbonyl; and R4 and R5 = H. For example, reaction of 1-methyl-4-phenyl-4-piperidinecarbonyl chloride with benzenemethanamine gave the amide (95%), which was chlorinated to afford N-[chloro(1-methyl-4-phenyl-4-piperidinyl)methylene]benzenemethanamine.bul .HCl (100%). Addn. of dimethoxyethanamine in DMF to give the piperidinecarboximidamide (100%), followed by redn. with NaOH provided 1-methyl-4-phenyl-4-[1-(phenylmethyl)-1H-imidazol-2-yl]piperidine (25%). Amidation with Et chloroformate in the presence of K2CO3 and DEA in toluene gave II (86 %). All compds. of the invention showed a pIC50 of .gtoreq. 6 for the .delta.-opioid receptor and a pIC50 of .ltoreq. 6 for the .mu.- and/or .kappa.-receptor in [35]GTP.gamma.S radioligand binding assays. The selectivity for the .delta.-opioid receptor over the .mu.-opioid receptor was as high as 600. Thus, I are useful for the

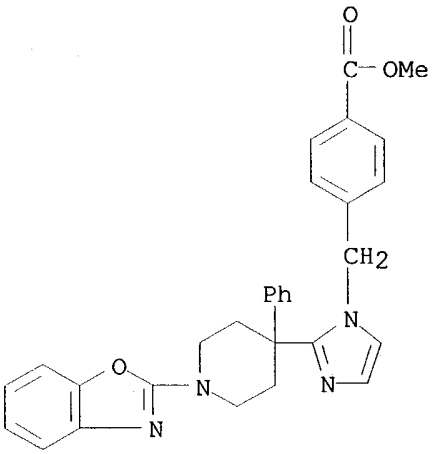
treatment of pain (no data).

IT **516520-92-6P 516520-94-8P 516520-96-0P**
516520-98-2P 516521-00-9P 516521-02-1P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(.delta.-opioid receptor agonist; prepn. of (phenyl)(imidazolyl)piperidines as selective non-peptide .delta.-opioid agonists for treatment of pain)

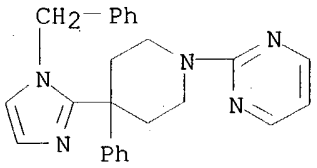
RN 516520-92-6 CAPLUS
CN Benzoxazole, 2-[4-phenyl-4-[1-(1-phenylethyl)-1H-imidazol-2-yl]-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 516520-94-8 CAPLUS
CN Benzoic acid, 4-[[2-[1-(2-benzoxazolyl)-4-phenyl-4-piperidinyl]-1H-imidazol-1-yl]methyl]-, methyl ester (9CI) (CA INDEX NAME)

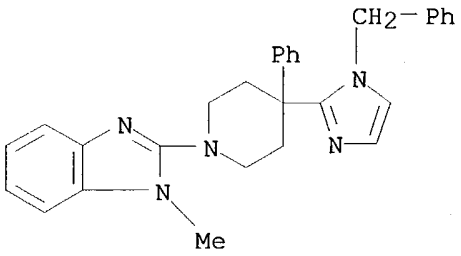


RN 516520-96-0 CAPLUS
CN Pyrimidine, 2-[4-phenyl-4-[1-(phenylmethyl)-1H-imidazol-2-yl]-1-piperidinyl]- (9CI) (CA INDEX NAME)

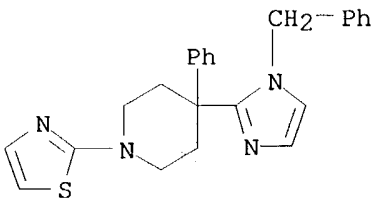


RN 516520-98-2 CAPLUS

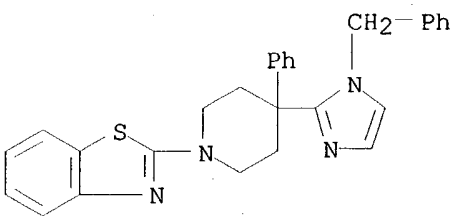
CN 1H-Benzimidazole, 1-methyl-2-[4-phenyl-4-[1-(phenylmethyl)-1H-imidazol-2-yl]-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 516521-00-9 CAPLUS
CN Piperidine, 4-phenyl-4-[1-(phenylmethyl)-1H-imidazol-2-yl]-1-(2-thiazolyl)- (9CI) (CA INDEX NAME)



RN 516521-02-1 CAPLUS
CN Benzothiazole, 2-[4-phenyl-4-[1-(phenylmethyl)-1H-imidazol-2-yl]-1-piperidinyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:408675 CAPLUS
DOCUMENT NUMBER: 136:401791
TITLE: Benzimidazole derivatives, specifically imidazo[4,5,1-j,k][1,4]benzodiazepin-7(4H)-one derivatives, and the preparation and therapeutic use thereof as inhibitors of poly(ADP-ribose)polymerase (PARP).
INVENTOR(S): Barth, Francis; Bichon, Daniel; Bolkenius, Frank; Van Dorsselaer, Viviane
PATENT ASSIGNEE(S): Sanofi-Synthelabo, Fr.
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002042306	A1	20020530	WO 2001-FR3667	20011121
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FR 2816941	A1	20020524	FR 2000-15141	20001123
FR 2816941	B1	20030131		
FR 2816942	A1	20020524	FR 2001-6157	20010510
FR 2816942	B1	20030509		
AU 2002022003	A5	20020603	AU 2002-22003	20011121
EP 1339719	A1	20030903	EP 2001-997491	20011121
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2004029866	A1	20040212	US 2003-432672	20030523

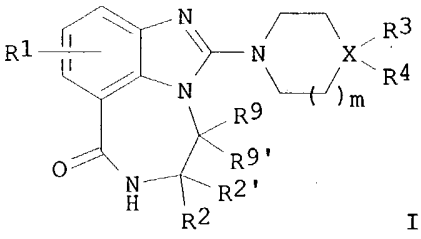
PRIORITY APPLN. INFO.:

FR 2000-15141	A	20001123
FR 2001-6157	A	20010510
WO 2001-FR3667	W	20011121

OTHER SOURCE(S): MARPAT 136:401791

ED Entered STN: 31 May 2002

GI



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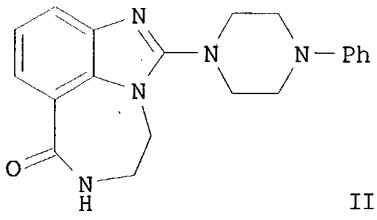


II

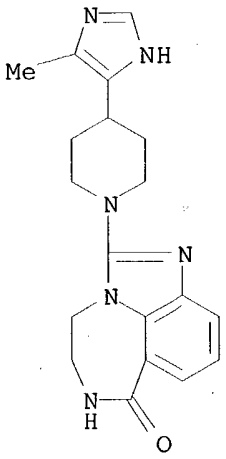
AB The invention concerns fused benzimidazole derivs. I, including their enantiomers, diastereomers, mixts., racemates, free bases, and pharmaceutically acceptable acid addn. salts [wherein: R1 = H, C1-4 alkyl or alkoxy, halo, NO2; R2, R2', R9, R9' = H, C1-4 alkyl; X = N or C; m = 1 or 2; when X = N, then R3 = H, C1-C4 alkyl, or is absent, and R4 = in particular H, C1-C6 alkyl, C3-C7 cycloalkyl, (un)substituted 4-piperidyl, (CH2)pNR5R6, (CH2)pCONR5R6, CO(CH2)pNR5R6, (un)substituted (CH2)pPh, (CH2)p-morpholinyl, (CH2)p-pyrrolidinyl, (CH2)p-tetrahydroisoquinoline, (CH2)p-heteoraryl, heteroarylcarbonyl, phenylcarbonyl, C1-C6 alkylcarbonyl, (CH2)pCOOR', or SO2Ph; when X = C, then R3 = H, NR5R6, NHCOR7, CONHR5, COR7, NHCONH2, OH, or CH2OH, and R4 = in particular H, (un)substituted (CH2)pPh, (CH2)p-heteroaryl, or (CH2)tNR7R8; p = 0-4; t = 0 or 1; R5, R6 = H, C1-4 alkyl; R7, R8 = C1-4 alkyl or alkoxy, or may together form an (un)substituted satd. ring of 5-7 members, optionally contg. an addnl. N atom]. I can be used for prepg. medicines for treating or preventing a wide variety of disorders wherein the PARP enzyme is involved. A table of 38 compds. I and salts is given. For instance, 4H-imidazo[4,5,1-ij]quinolin-2,6(1H,5H)-dione underwent chlorination of

the 2-oxo group with POCl3 and NH4Cl, and then ring-expansion at the 6-oxo group using NaN3 and H2SO4. The resultant intermediate, 2-chloro-5,6-dihydroimidazo[4,5,1-jk][1,4]benzodiazepin-7(4H)-one, reacted with 1-phenylpiperazine in the presence of 2,6-lutidine and CsF, in triethylene glycol monomethyl ether at 140.degree., to give title compd. II in 53% yield. The most active compds. I inhibited human recombinant PARP-1 and/or PARP-2 in vitro with IC50 values of 5-500 nM.

IT **429689-45-2P**, 2-[4-(5-Methyl-1H-imidazol-4-yl)piperidin-1-yl]-5,6-dihydroimidazo[4,5,1-jk][1,4]benzodiazepin-7(4H)-one
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; prepn. of benzimidazole derivs. as PARP inhibitors)

RN 429689-45-2 CAPLUS

CN Imidazo[4,5,1-jk][1,4]benzodiazepin-7(4H)-one, 5,6-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 7 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:123004 CAPLUS
DOCUMENT NUMBER: 136:183818
TITLE: Fused benzimidazole derivatives, and preparation and therapeutic use thereof as inhibitors of poly(ADP-ribose) polymerase (PARP)
INVENTOR(S): Barth, Francis; Bichon, Daniel; Bolkenius, Frank; Van Dorsselaer, Viviane
PATENT ASSIGNEE(S): Sanofi-Synthelabo, Fr.
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002012239	A1	20020214	WO 2001-FR2556	20010806

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

FR 2812878	A1	20020215	FR 2000-10419	20000808	
FR 2812878	B1	20021011			
FR 2816619	A1	20020517	FR 2000-14696	20001115	
FR 2816619	B1	20030131			
AU 2001082267	A5	20020218	AU 2001-82267	20010806	
EP 1309594	A1	20030514	EP 2001-960871	20010806	
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BR 2001013046	A	20030701	BR 2001-13046	20010806	
JP 2004505975	T2	20040226	JP 2002-518214	20010806	
BG 107460	A	20030930	BG 2003-107460	20030114	
US 2003203893	A1	20031030	US 2003-343467	20030130	
NO 2003000596	A	20030401	NO 2003-596	20030206	

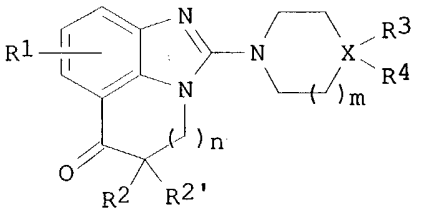
PRIORITY APPLN. INFO.:

FR 2000-10419	A	20000808
FR 2000-14696	A	20001115
WO 2001-FR2556	W	20010806

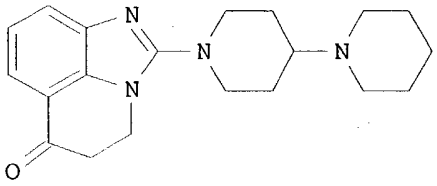
OTHER SOURCE(S): MARPAT 136:183818

ED Entered STN: 15 Feb 2002

GI



I



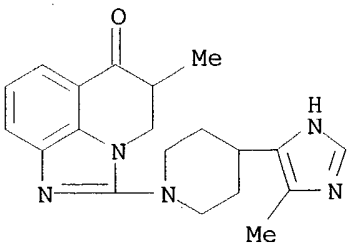
II

AB The invention concerns benzimidazole derivs. I [wherein: R1 = H, C1-4 alkyl or alkoxy, halo, NO2; R2, R2' = H, C1-4 alkyl; X = N or C; when X = N: R3 = H or C1-4 alkyl, or does not exist; R4 = H or C1-6 alkyl, C3-7 cycloalkyl, (un)substituted C3-7 heterocycloalkyl, (un)substituted (CH2)p-heteroaryl, heteroarylcarbonyl, (halo)phenylcarbonyl, C1-6 alkylcarbonyl, (CH2)pCOOR, (un)substituted phenylsulfonyl, (un)substituted (CH2)pPh; and when X = C: R3 = H or NR5R6, N+(R5)3, NHCOR7, CONHR5, COR7, NHCONH2, OH, or CH2OH; R4 = H, (un)substituted (CH2)pPh, (un)substituted (CH2)p-heteroaryl, or (CH2)tNR7R8 group; addnl. restrictions on R4; R5, R6 = H, C1-4 alkyl; R7, R8 = C1-4 alkyl or alkoxy; or R7R8 forms an (un)substituted (un)quaternized 5- to 7-membered ring; n = 1 or 2; m = 1 or 2; p = 0-4; t = 0-1; with 2 exclusions], and their stereoisomers and pharmaceutically acceptable salts are claimed. The invention compds. are useful in therapeutics for preventing or treating a wide variety of disorders wherein poly(ADP-ribose) polymerase (PARP) is involved. Over 90 invention compds., mostly imidazoquinolinone derivs., and some diazabenzazulenones derivs., are disclosed. For instance, 4H-imidazo[4,5,1-ij]quinoline-2,6(1H,5H)-dione was chlorinated with POCl3

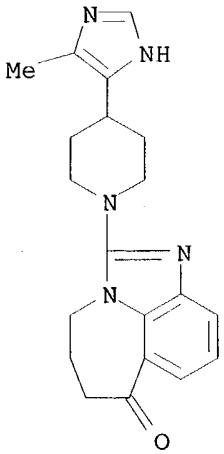
to give 2-chloro-4,5-dihydroimidazo[4,5,1-ij]quinolin-6-one, which reacted 4-piperidinopiperidine in the presence of KF and 2,6-lutidine to give title compd. II. I were active against human recombinant PARP-1, and also PARP-2, at concns. of 5-500 nM in vitro.

IT **398457-80-2P**, 5-Methyl-2-[4-(5-methylimidazol-4-yl)piperidin-1-yl]-4,5-dihydroimidazo[4,5,1-ij]quinolin-6-one **398457-81-3P**, 1-[4-(5-Methylimidazol-4-yl)piperidin-1-yl]-8,9-dihydro-7H-2,9a-diazabenzo[cd]azulen-6-one
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; prepn. of fused benzimidazole derivs. as PARP inhibitors)

RN 398457-80-2 CAPLUS
CN 6H-Imidazo[4,5,1-ij]quinolin-6-one, 4,5-dihydro-5-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 398457-81-3 CAPLUS
CN Imidazo[4,5,1-jk][1]benzazepin-7(4H)-one, 5,6-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 8 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:283949 CAPLUS
DOCUMENT NUMBER: 134:311218
TITLE: Synthesis and use of heterocyclic sodium/proton exchange inhibitors
INVENTOR(S): Ahmad, Saleem; Wu, Shung C.; O'Neil, Steven V.; Ngu, Khehyong; Atwal, Karnail S.
PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA

SOURCE: PCT Int. Appl., 221 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001027107	A2	20010419	WO 2000-US27461	20001002
WO 2001027107	A3	20020124		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1224183	A2	20020724	EP 2000-968723	20001002
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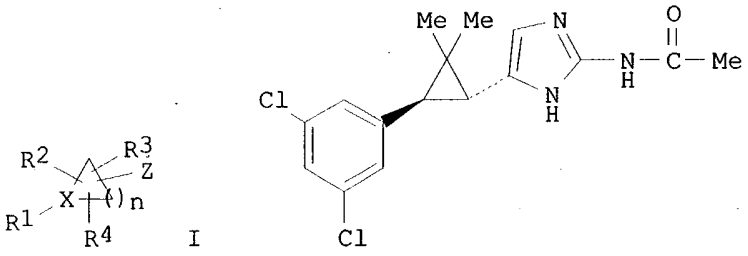
BR 2000014725	A	20030617	BR 2000-14725	20001002
JP 2003527331	T2	20030916	JP 2001-530325	20001002
NO 2002001717	A	20020610	NO 2002-1717	20020411

PRIORITY APPLN. INFO.: US 1999-158755P P 19991012
WO 2000-US27461 W 20001002

OTHER SOURCE(S): MARPAT 134:311218
ED Entered STN: 20 Apr 2001
GI



I II

AB Compds. of formula I [wherein; n is 1-5; X is N or CR5, where R5 is H, halo, alkenyl, alkynyl, alkoxy, alkyl, aryl or heteroaryl; Z is a heteroaryl group; R1 is H, alk(en)(yn)yl, alk(enyl)(ynyl)oxy, (aryl or alkyl)3Si, cycloalk(en)yl, (aryl)amino, aryl(alkyl), cycloheteroaryl, etc.; R2, R3 and R4 are any of the groups set out for R1 and optionally substituted with 1 to 5 substituents which may be the same or different and when X is N, R1 is preferably aryl or heteroaryl] are claimed. Several hundred examples are disclosed. Synthesis of II proceeds via cyclopropanation of the cinnamate derived from the olefination between 3,5-dichlorobenzaldehyde and t-butyldiethylphosphonoacetate. The intermediate tert-Bu ester is converted to the corresponding .alpha.-chloroketone and reacted with acetyl guanidine to provide II in a total of 5 steps. Compds. I are said to be sodium/proton exchange inhibitors (NHE). Pharmaceutical combinations are claimed using I and certain antihypertensive agents, .beta.-adrenergic agonists, hypolipidemic agents, antidiabetic agents, antiobesity agents, etc. Compds. I are useful as antianginal and cardioprotective agents and provide a method for preventing or treating angina pectoris, cardiac dysfunction, myocardial

necrosis, and arrhythmia.

IT **335062-12-9P 335062-43-6P 335062-57-2P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(synthesis and use of heterocyclic sodium/proton exchange inhibitors)

RN 335062-12-9 CAPLUS
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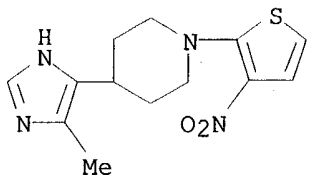
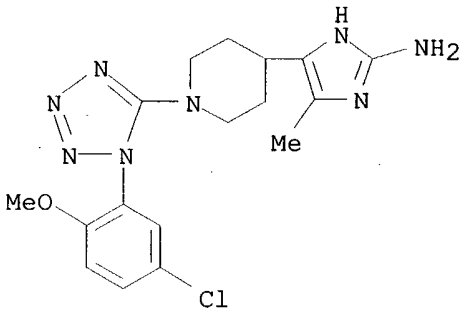
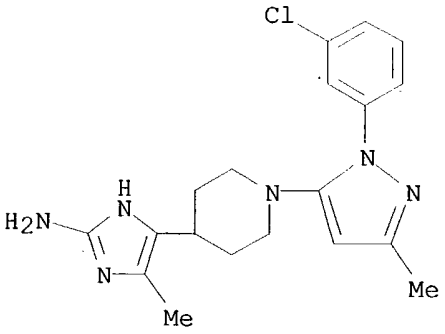


RN 335062-43-6 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(5-chloro-2-methoxyphenyl)-1H-tetrazol-5-yl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



RN 335062-57-2 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(3-chlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



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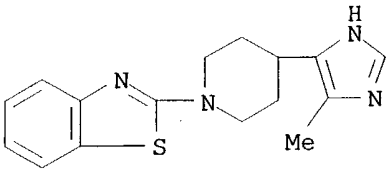
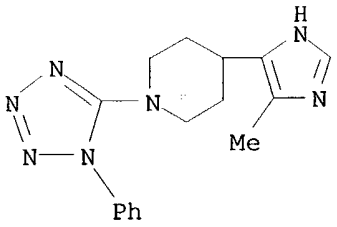
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and use of heterocyclic sodium/proton exchange inhibitors)

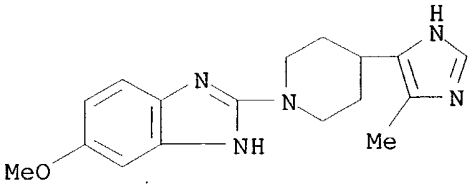
RN 146365-55-1 CAPLUS
CN Benzothiazole, 2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 335062-07-2 CAPLUS
CN Piperidine, 4-(5-methyl-1H-imidazol-4-yl)-1-(1-phenyl-1H-tetrazol-5-yl)- (9CI) (CA INDEX NAME)



RN 335062-09-4 CAPLUS
CN 1H-Benzimidazole, 5-methoxy-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



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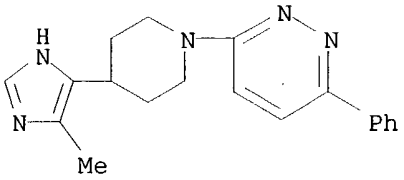
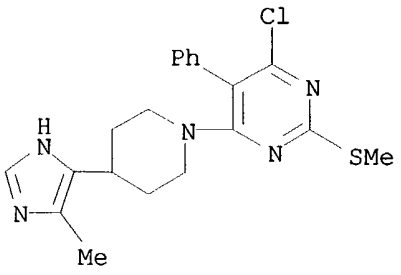
CN Pyridazine, 3-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-6-phenyl- (9CI) (CA INDEX NAME)



RN 335062-11-8 CAPLUS
CN Pyrimidine, 4-chloro-6-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-2-(methylthio)-5-phenyl- (9CI) (CA INDEX NAME)



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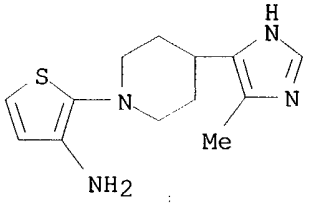
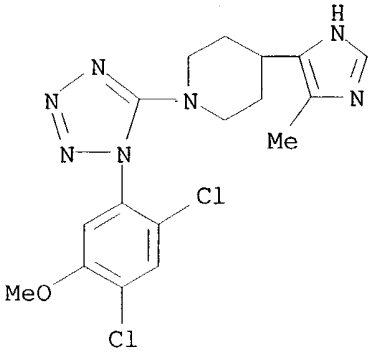
CN 3-Thiophenamine, 2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 335062-26-5 CAPLUS
CN Piperidine, 1-[1-(2,4-dichloro-5-methoxyphenyl)-1H-tetrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



RN 335062-27-6 CAPLUS
CN Piperidine, 1-[1-(2,4-dichloro-5-methoxyphenyl)-1H-tetrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

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CRN 335062-26-5
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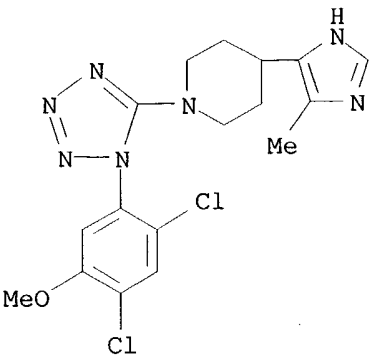
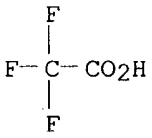
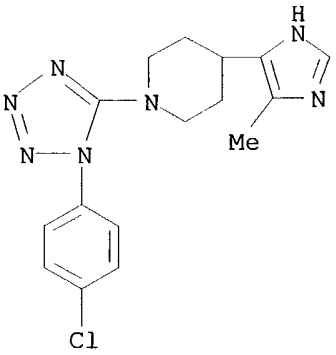


CM 2

CRN 76-05-1
CMF C2 H F3 O2



RN 335062-28-7 CAPLUS
CN Piperidine, 1-[1-(4-chlorophenyl)-1H-tetrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



RN 335062-29-8 CAPLUS
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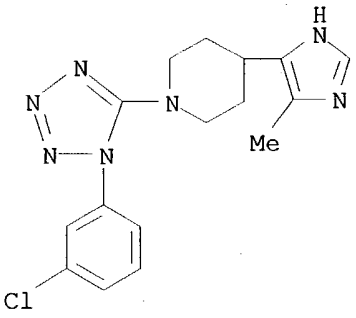

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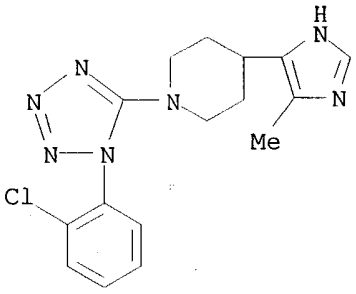

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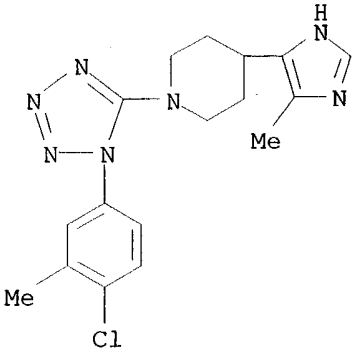
CN Piperidine, 1-[1-(4-chloro-3-methylphenyl)-1H-tetrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



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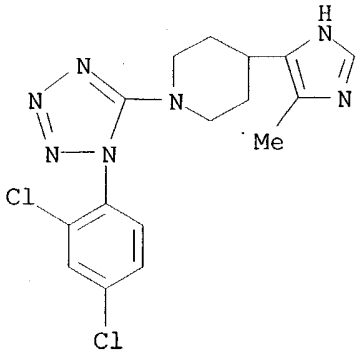
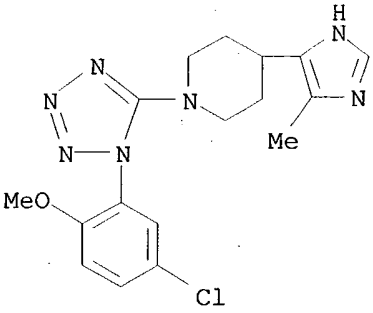
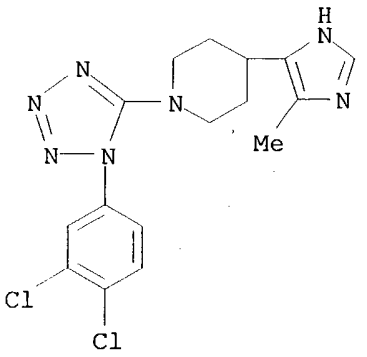


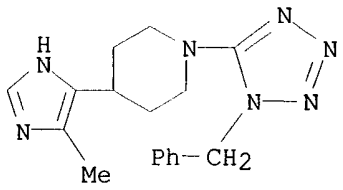
RN 335062-33-4 CAPLUS
CN Piperidine, 1-[1-(5-chloro-2-methoxyphenyl)-1H-tetrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



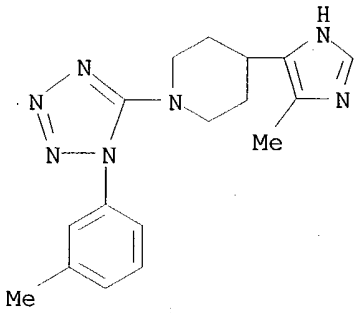
RN 335062-34-5 CAPLUS
CN Piperidine, 1-[1-(3,4-dichlorophenyl)-1H-tetrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



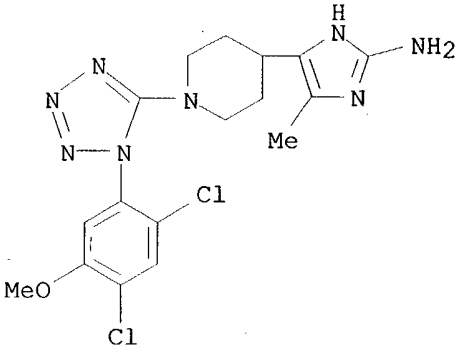
RN 335062-35-6 CAPLUS
CN Piperidine, 4-(5-methyl-1H-imidazol-4-yl)-1-[1-(phenylmethyl)-1H-tetrazol-5-yl]- (9CI) (CA INDEX NAME)



RN 335062-36-7 CAPLUS
CN Piperidine, 4-(5-methyl-1H-imidazol-4-yl)-1-[1-(3-methylphenyl)-1H-tetrazol-5-yl]- (9CI) (CA INDEX NAME)



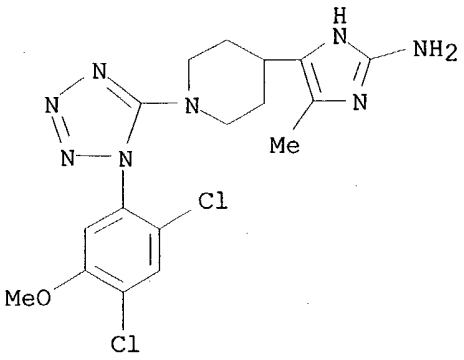
RN 335062-37-8 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(2,4-dichloro-5-methoxyphenyl)-1H-tetrazol-5-yl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



RN 335062-38-9 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(2,4-dichloro-5-methoxyphenyl)-1H-tetrazol-5-yl]-4-piperidinyl]-5-methyl-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

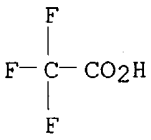
CM 1

CRN 335062-37-8
CMF C17 H20 Cl2 N8 O

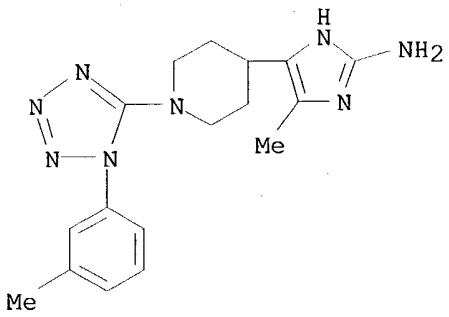


CM 2

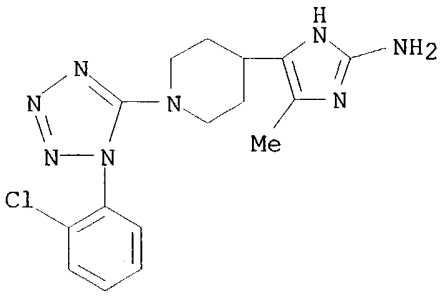
CRN 76-05-1
CMF C2 H F3 O2



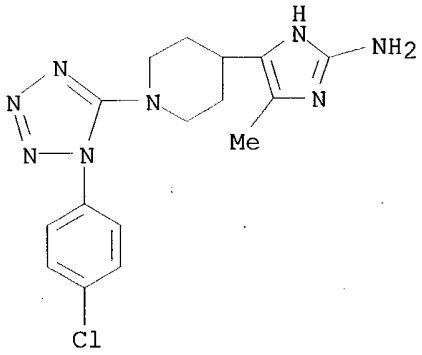
RN 335062-39-0 CAPLUS
CN 1H-Imidazol-2-amine, 4-methyl-5-[1-[1-(3-methylphenyl)-1H-tetrazol-5-yl]-4-piperidinyl]- (9CI) (CA INDEX NAME)



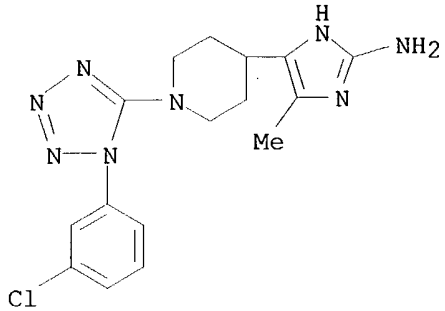
RN 335062-40-3 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(2-chlorophenyl)-1H-tetrazol-5-yl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



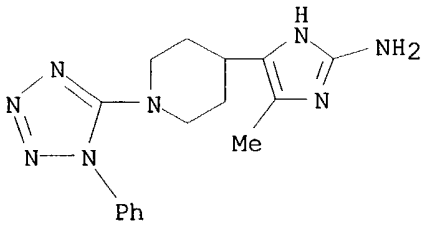
RN 335062-41-4 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(4-chlorophenyl)-1H-tetrazol-5-yl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



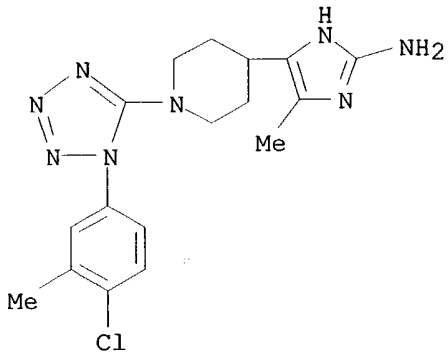
RN 335062-42-5 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(3-chlorophenyl)-1H-tetrazol-5-yl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



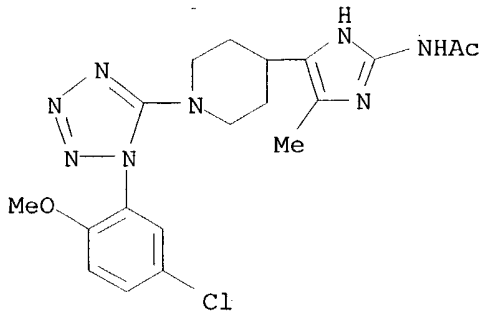
RN 335062-44-7 CAPLUS
CN 1H-Imidazol-2-amine, 4-methyl-5-[1-(1-phenyl-1H-tetrazol-5-yl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



RN 335062-46-9 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(4-chloro-3-methylphenyl)-1H-tetrazol-5-yl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



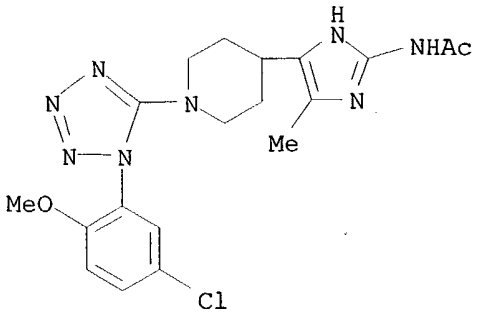
RN 335062-47-0 CAPLUS
CN Acetamide, N-[4-[1-[1-(5-chloro-2-methoxyphenyl)-1H-tetrazol-5-yl]-4-piperidinyl]-5-methyl-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)



RN 335062-48-1 CAPLUS
CN Acetamide, N-[4-[1-[1-(5-chloro-2-methoxyphenyl)-1H-tetrazol-5-yl]-4-piperidinyl]-5-methyl-1H-imidazol-2-yl]-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

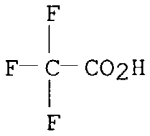
CM 1

CRN 335062-47-0
CMF C19 H23 Cl N8 O2

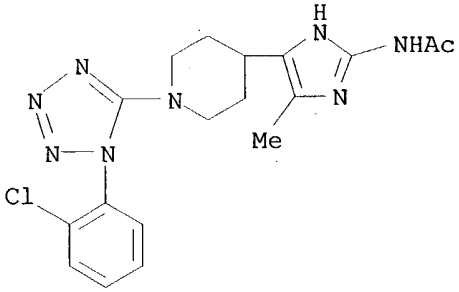


CM 2

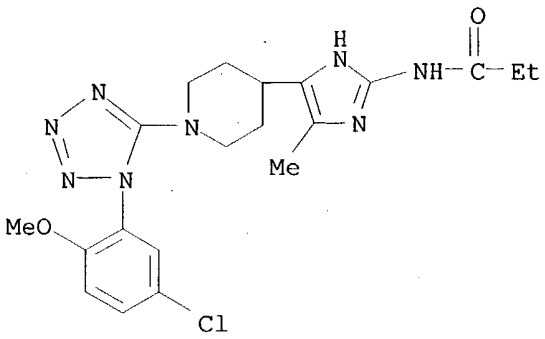
CRN 76-05-1
CMF C2 H F3 O2



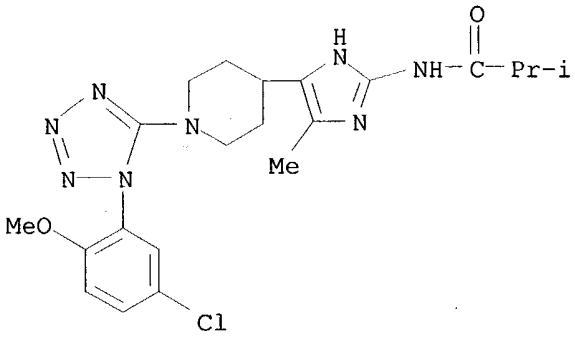
RN 335062-49-2 CAPLUS
CN Acetamide, N-[4-[1-[1-(2-chlorophenyl)-1H-tetrazol-5-yl]-4-piperidinyl]-5-methyl-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)



RN 335062-50-5 CAPLUS
CN Propanamide, N-[4-[1-[1-(5-chloro-2-methoxyphenyl)-1H-tetrazol-5-yl]-4-piperidinyl]-5-methyl-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)



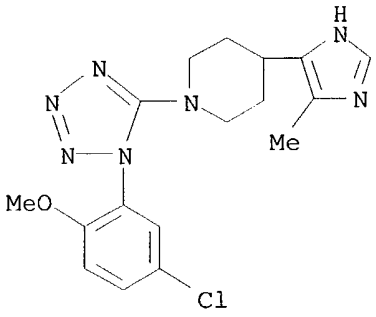
RN 335062-51-6 CAPLUS
CN Propanamide, N-[4-[1-[1-(5-chloro-2-methoxyphenyl)-1H-tetrazol-5-yl]-4-piperidinyl]-5-methyl-1H-imidazol-2-yl]-2-methyl- (9CI) (CA INDEX NAME)



RN 335062-52-7 CAPLUS
CN Piperidine, 1-[1-(5-chloro-2-methoxyphenyl)-1H-tetrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)-, trifluoroacetate (9CI) (CA INDEX NAME)

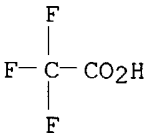
CM 1

CRN 335062-33-4
CMF C17 H20 Cl N7 O

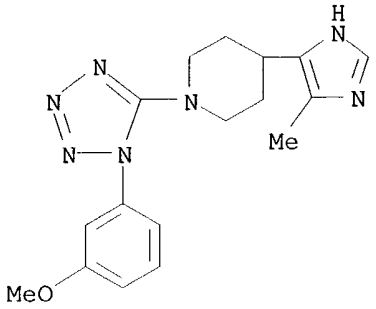


CM 2

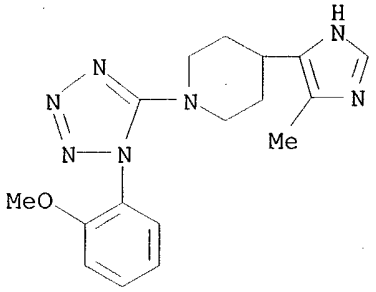
CRN 76-05-1
CMF C2 H F3 O2



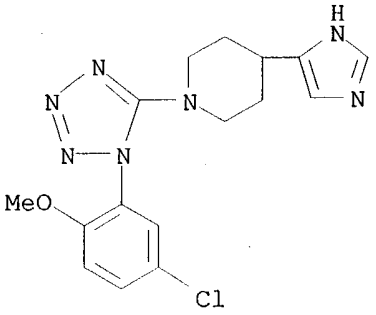
RN 335062-53-8 CAPLUS
CN Piperidine, 1-[1-(3-methoxyphenyl)-1H-tetrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



RN 335062-54-9 CAPLUS
CN Piperidine, 1-[1-(2-methoxyphenyl)-1H-tetrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)

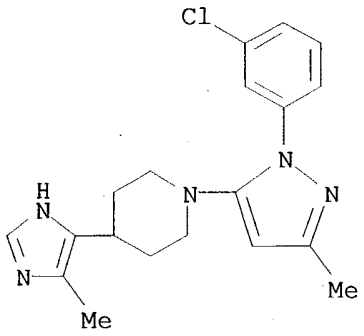


RN 335062-55-0 CAPLUS
CN Piperidine, 1-[1-(5-chloro-2-methoxyphenyl)-1H-tetrazol-5-yl]-4-(1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)

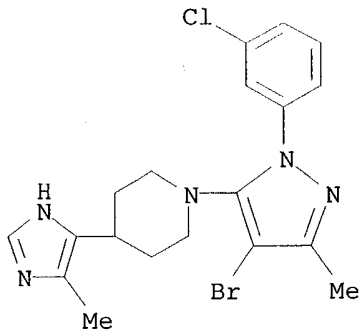


RN 335062-56-1 CAPLUS

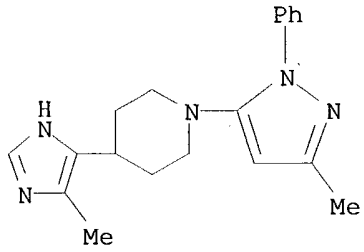
CN Piperidine, 1-[1-(3-chlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



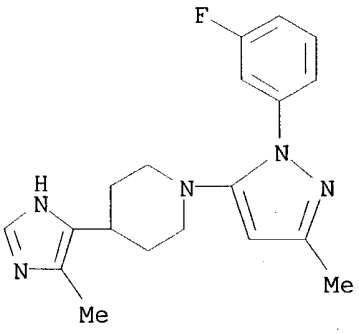
RN 335062-58-3 CAPLUS
CN Piperidine, 1-[4-bromo-1-(3-chlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



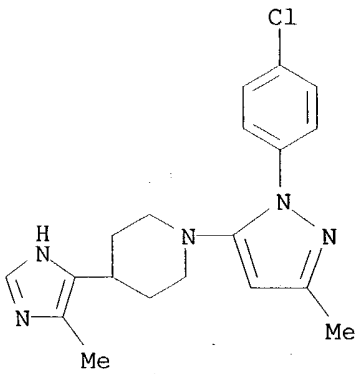
RN 335062-59-4 CAPLUS
CN Piperidine, 4-(5-methyl-1H-imidazol-4-yl)-1-(3-methyl-1-phenyl-1H-pyrazol-5-yl)- (9CI) (CA INDEX NAME)



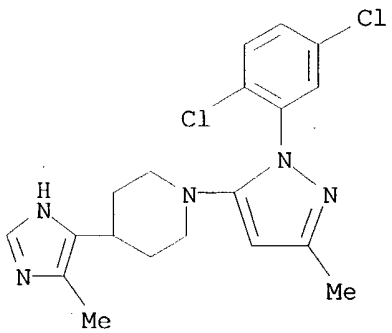
RN 335062-60-7 CAPLUS
CN Piperidine, 1-[1-(3-fluorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



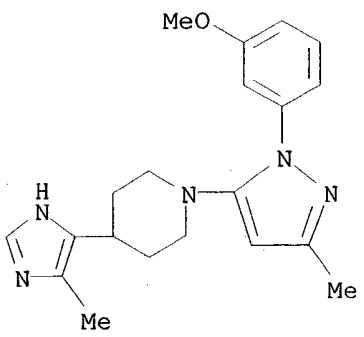
RN 335062-61-8 CAPLUS
CN Piperidine, 1-[1-(4-chlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



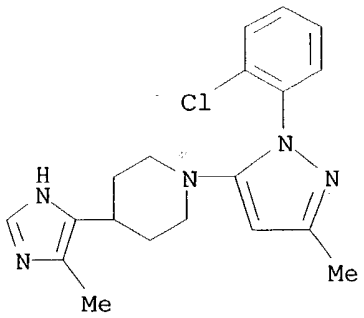
RN 335062-62-9 CAPLUS
CN Piperidine, 1-[1-(2,5-dichlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



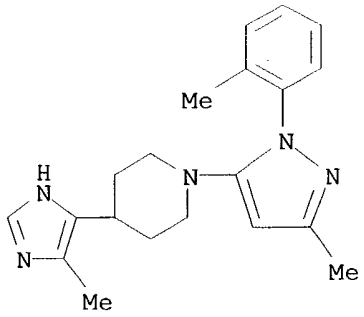
RN 335062-63-0 CAPLUS
CN Piperidine, 1-[1-(3-methoxyphenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



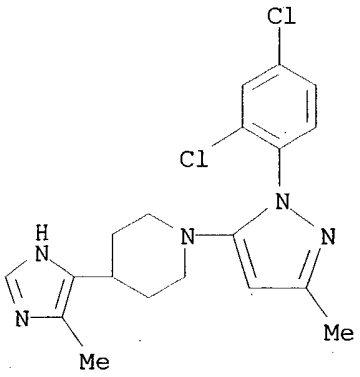
RN 335062-64-1 CAPLUS
CN Piperidine, 1-[1-(2-chlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



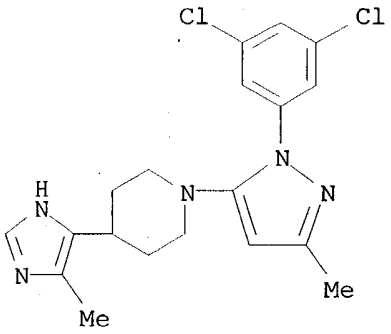
RN 335062-65-2 CAPLUS
CN Piperidine, 4-(5-methyl-1H-imidazol-4-yl)-1-[3-methyl-1-(2-methylphenyl)-1H-pyrazol-5-yl]- (9CI) (CA INDEX NAME)



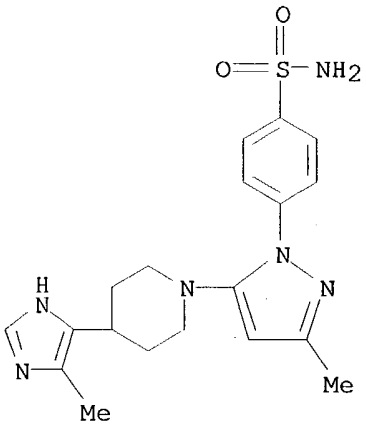
RN 335062-66-3 CAPLUS
CN Piperidine, 1-[1-(2,4-dichlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



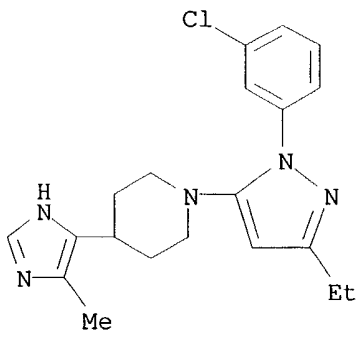
RN 335062-67-4 CAPLUS
CN Piperidine, 1-[1-(3,5-dichlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



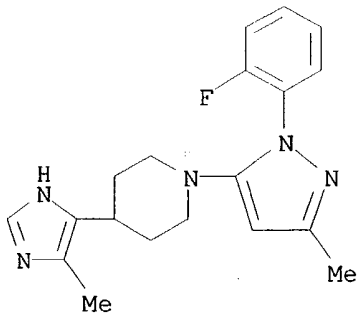
RN 335062-68-5 CAPLUS
CN Benzenesulfonamide, 4-[3-methyl-5-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-1H-pyrazol-1-yl]- (9CI) (CA INDEX NAME)



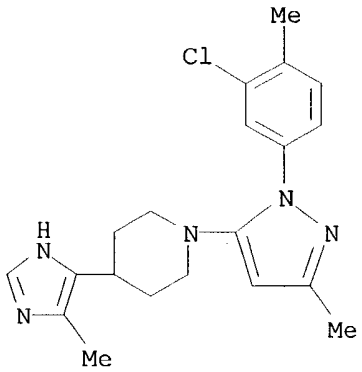
RN 335062-69-6 CAPLUS
CN Piperidine, 1-[1-(3-chlorophenyl)-3-ethyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



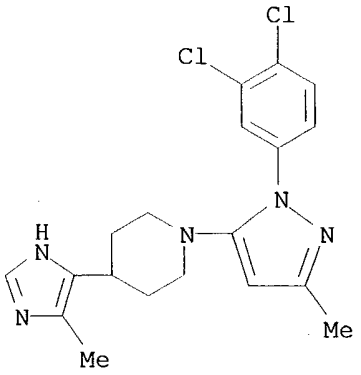
RN 335062-71-0 CAPLUS
CN Piperidine, 1-[1-(2-fluorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



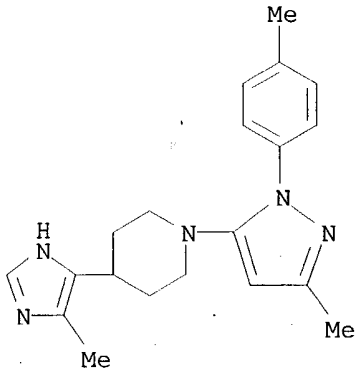
RN 335062-72-1 CAPLUS
CN Piperidine, 1-[1-(3-chloro-4-methylphenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



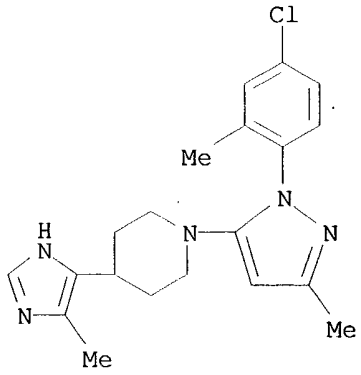
RN 335062-73-2 CAPLUS
CN Piperidine, 1-[1-(3,4-dichlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



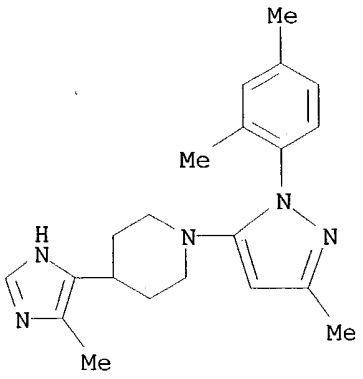
RN 335062-74-3 CAPLUS
CN Piperidine, 4-(5-methyl-1H-imidazol-4-yl)-1-[3-methyl-1-(4-methylphenyl)-1H-pyrazol-5-yl]- (9CI) (CA INDEX NAME)



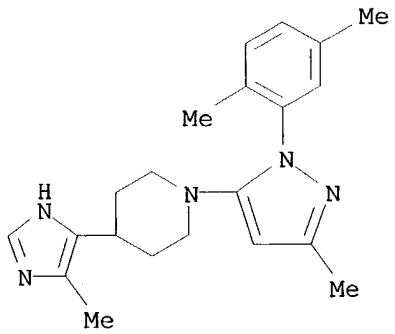
RN 335062-75-4 CAPLUS
CN Piperidine, 1-[1-(4-chloro-2-methylphenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



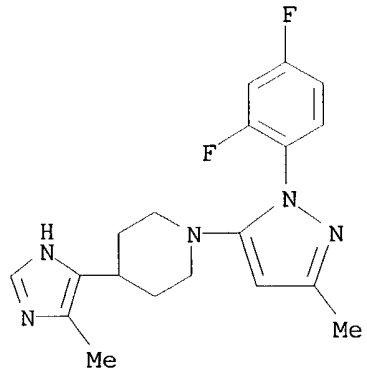
RN 335062-76-5 CAPLUS
CN Piperidine, 1-[1-(2,4-dimethylphenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



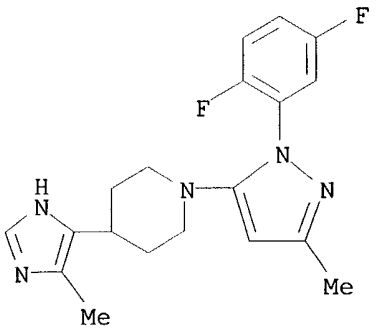
RN 335062-77-6 CAPLUS
CN Piperidine, 1-[1-(2,5-dimethylphenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



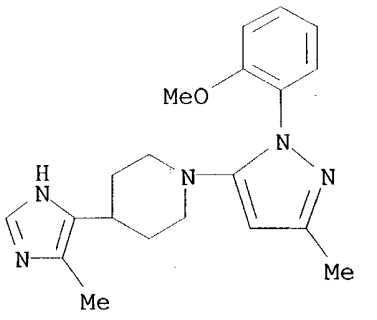
RN 335062-78-7 CAPLUS
CN Piperidine, 1-[1-(2,4-difluorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



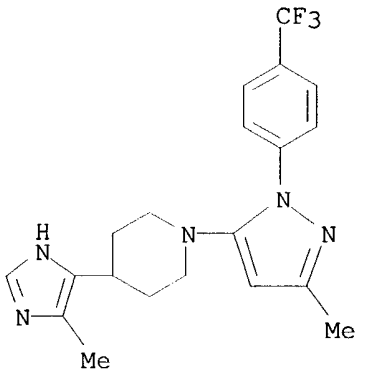
RN 335062-79-8 CAPLUS
CN Piperidine, 1-[1-(2,5-difluorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



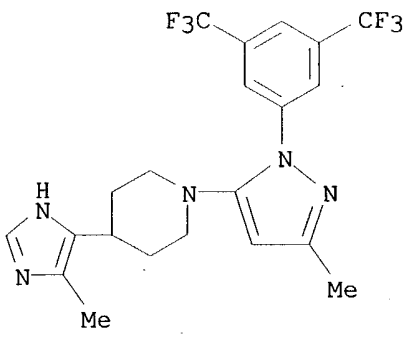
RN 335062-80-1 CAPLUS
CN Piperidine, 1-[1-(2-methoxyphenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



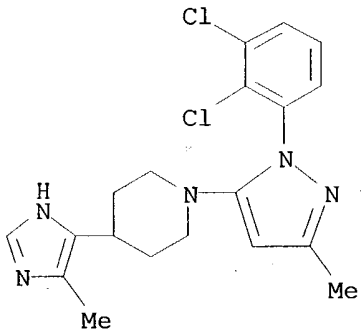
RN 335062-81-2 CAPLUS
CN Piperidine, 4-(5-methyl-1H-imidazol-4-yl)-1-[3-methyl-1-[4-(trifluoromethyl)phenyl]-1H-pyrazol-5-yl]- (9CI) (CA INDEX NAME)



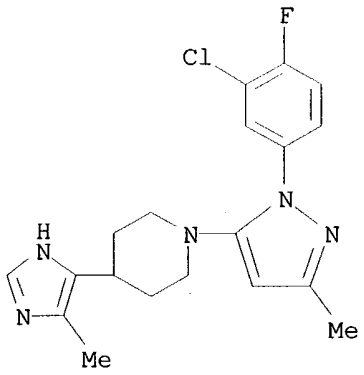
RN 335062-82-3 CAPLUS
CN Piperidine, 1-[1-[3,5-bis(trifluoromethyl)phenyl]-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



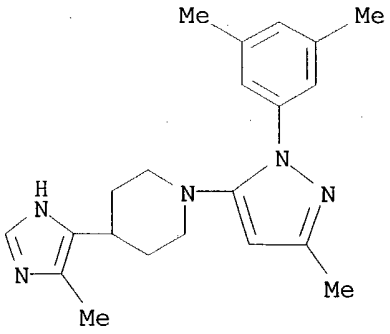
RN 335062-83-4 CAPLUS
CN Piperidine, 1-[1-(2,3-dichlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



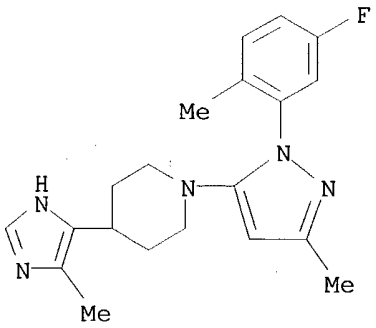
RN 335062-84-5 CAPLUS
CN Piperidine, 1-[1-(3-chloro-4-fluorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



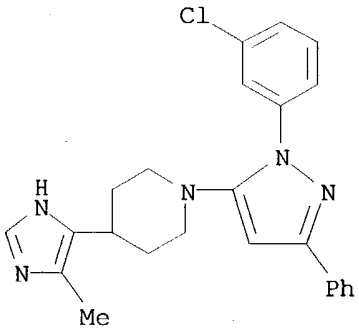
RN 335062-85-6 CAPLUS
CN Piperidine, 1-[1-(3,5-dimethylphenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



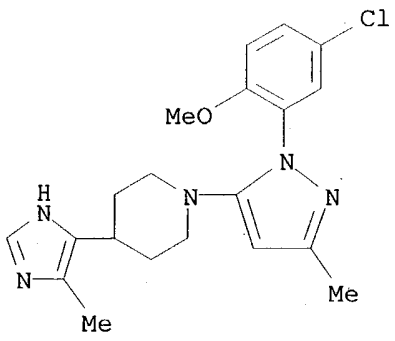
RN 335062-86-7 CAPLUS
CN Piperidine, 1-[1-(5-fluoro-2-methylphenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



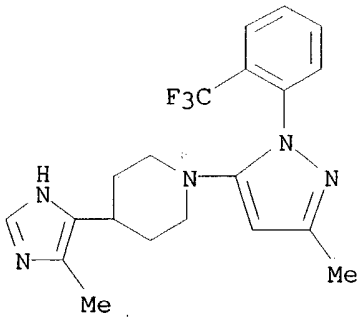
RN 335062-87-8 CAPLUS
CN Piperidine, 1-[1-(3-chlorophenyl)-3-phenyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



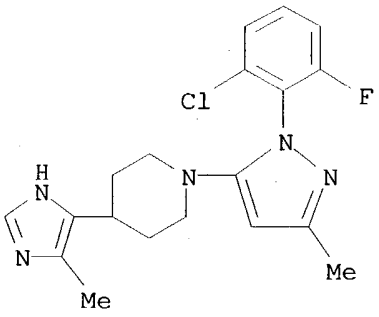
RN 335062-88-9 CAPLUS
CN Piperidine, 1-[1-(5-chloro-2-methoxyphenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



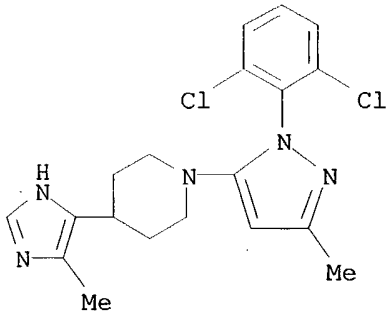
RN 335062-89-0 CAPLUS
CN Piperidine, 4-(5-methyl-1H-imidazol-4-yl)-1-[3-methyl-1-[2-(trifluoromethyl)phenyl]-1H-pyrazol-5-yl]- (9CI) (CA INDEX NAME)



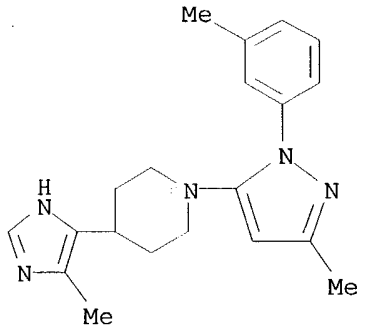
RN 335062-90-3 CAPLUS
CN Piperidine, 1-[1-(2-chloro-6-fluorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



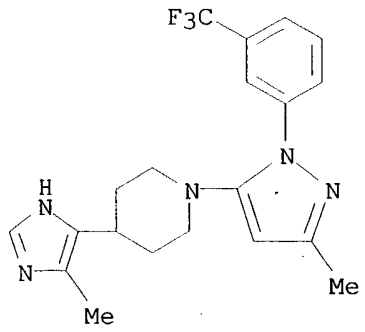
RN 335062-91-4 CAPLUS
CN Piperidine, 1-[1-(2,6-dichlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



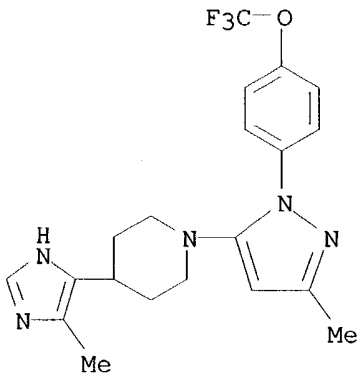
RN 335062-92-5 CAPLUS
CN Piperidine, 4-(5-methyl-1H-imidazol-4-yl)-1-[3-methyl-1-(3-methylphenyl)-1H-pyrazol-5-yl]- (9CI) (CA INDEX NAME)



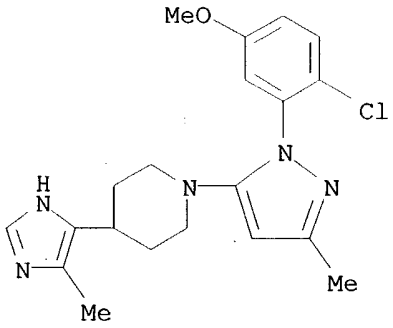
RN 335062-93-6 CAPLUS
CN Piperidine, 4-(5-methyl-1H-imidazol-4-yl)-1-[3-methyl-1-[3-(trifluoromethyl)phenyl]-1H-pyrazol-5-yl]- (9CI) (CA INDEX NAME)



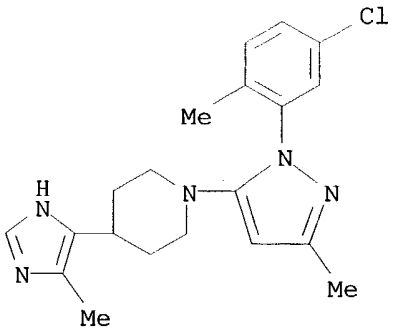
RN 335062-94-7 CAPLUS
CN Piperidine, 4-(5-methyl-1H-imidazol-4-yl)-1-[3-methyl-1-[4-(trifluoromethoxy)phenyl]-1H-pyrazol-5-yl]- (9CI) (CA INDEX NAME)



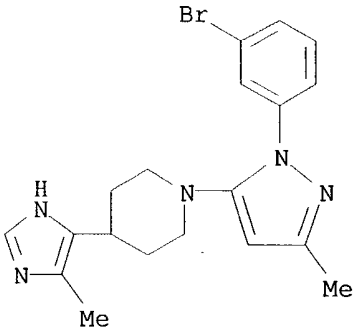
RN 335062-95-8 CAPLUS
CN Piperidine, 1-[1-(2-chloro-5-methoxyphenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



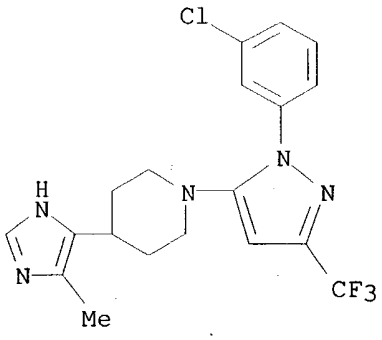
RN 335062-96-9 CAPLUS
CN Piperidine, 1-[1-(5-chloro-2-methylphenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



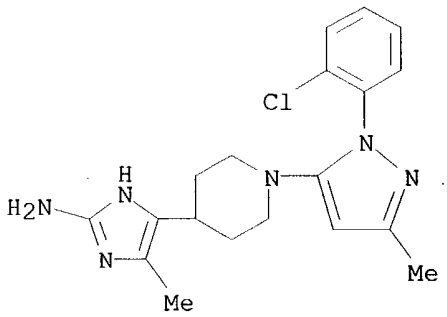
RN 335062-97-0 CAPLUS
CN Piperidine, 1-[1-(3-bromophenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



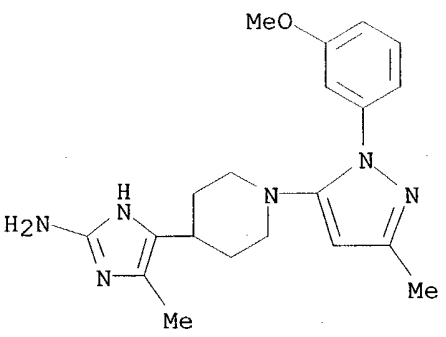
RN 335062-98-1 CAPLUS
CN Piperidine, 1-[1-(3-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



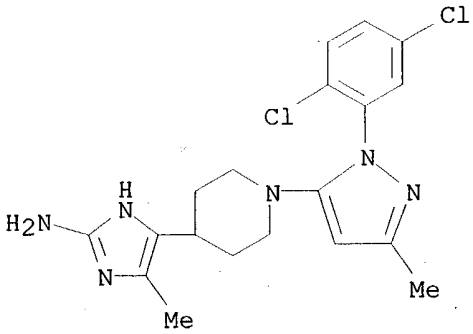
RN 335062-99-2 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(2-chlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



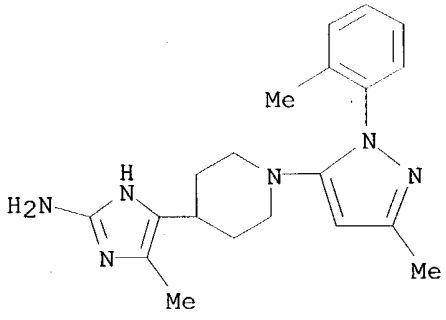
RN 335063-00-8 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(3-methoxyphenyl)-3-methyl-1H-pyrazol-5-yl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



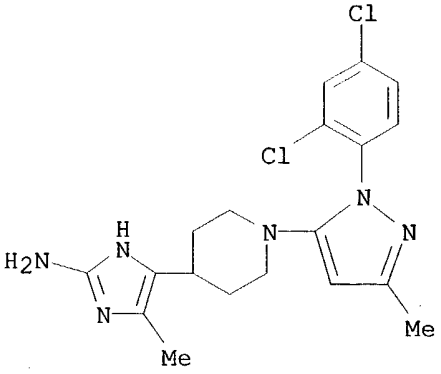
RN 335063-01-9 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(2,5-dichlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



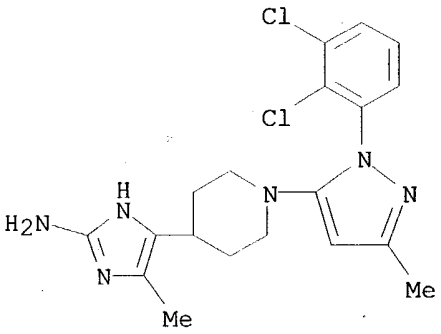
RN 335063-02-0 CAPLUS
CN 1H-Imidazol-2-amine, 4-methyl-5-[1-[3-methyl-1-(2-methylphenyl)-1H-pyrazol-5-yl]-4-piperidinyl]- (9CI) (CA INDEX NAME)



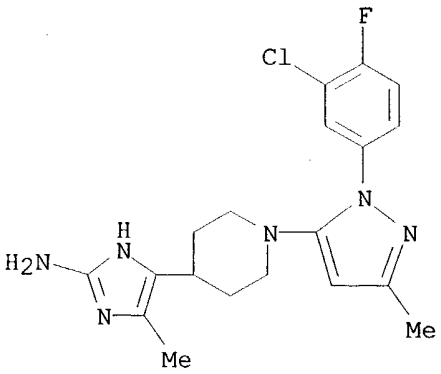
RN 335063-03-1 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(2,4-dichlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



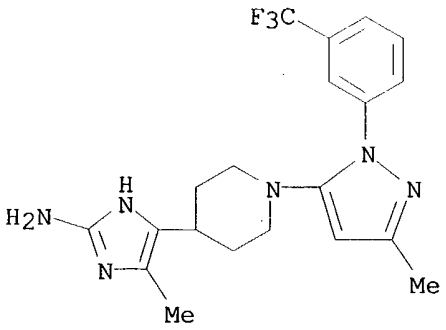
RN 335063-04-2 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(2,3-dichlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



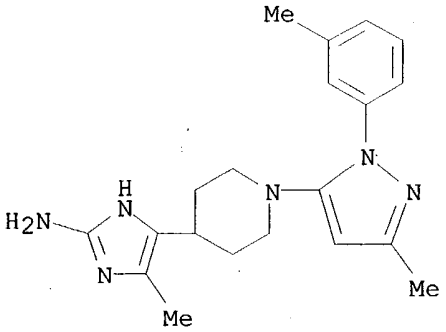
RN 335063-05-3 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(3-chloro-4-fluorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



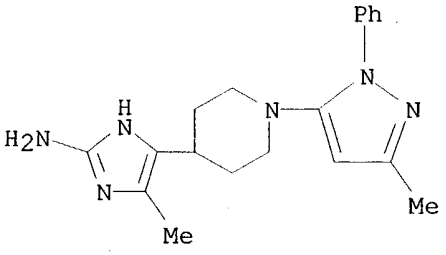
RN 335063-06-4 CAPLUS
CN 1H-Imidazol-2-amine, 4-methyl-5-[1-[3-methyl-1-[3-(trifluoromethyl)phenyl]-1H-pyrazol-5-yl]-4-piperidinyl]- (9CI) (CA INDEX NAME)



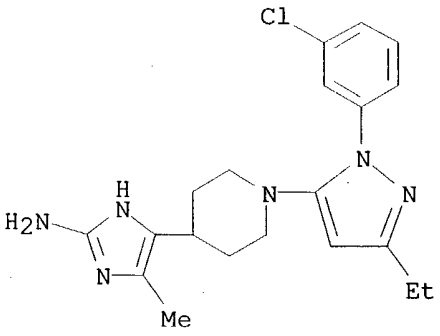
RN 335063-07-5 CAPLUS
CN 1H-Imidazol-2-amine, 4-methyl-5-[1-[3-methyl-1-(3-methylphenyl)-1H-pyrazol-5-yl]-4-piperidinyl]- (9CI) (CA INDEX NAME)



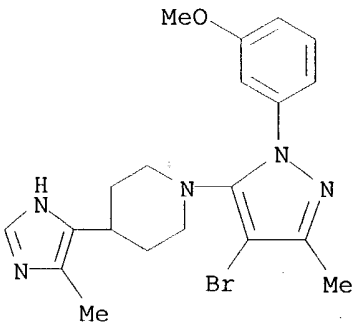
RN 335063-08-6 CAPLUS
CN 1H-Imidazol-2-amine, 4-methyl-5-[1-(3-methyl-1-phenyl-1H-pyrazol-5-yl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



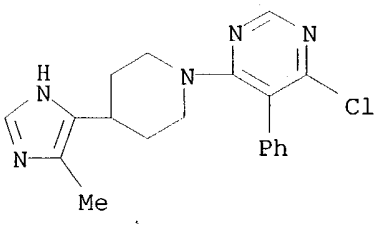
RN 335063-09-7 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(3-chlorophenyl)-3-ethyl-1H-pyrazol-5-yl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



RN 335063-10-0 CAPLUS
CN Piperidine, 1-[4-bromo-1-(3-methoxyphenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



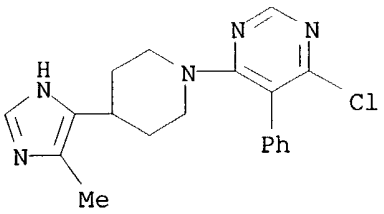
RN 335063-11-1 CAPLUS
CN Pyrimidine, 4-chloro-6-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-phenyl- (9CI) (CA INDEX NAME)



RN 335063-12-2 CAPLUS
CN Pyrimidine, 4-chloro-6-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-phenyl-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

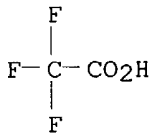
CM 1

CRN 335063-11-1
CMF C19 H20 Cl N5

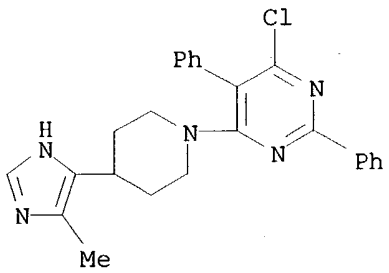


CM 2

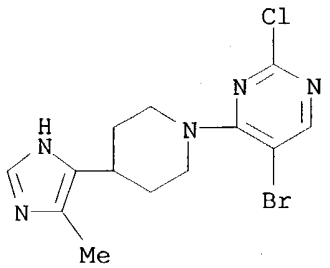
CRN 76-05-1
CMF C2 H F3 O2



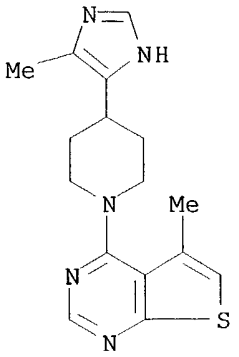
RN 335063-13-3 CAPLUS
CN Pyrimidine, 4-chloro-6-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-2,5-diphenyl- (9CI) (CA INDEX NAME)



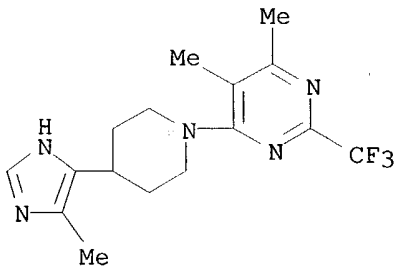
RN 335063-14-4 CAPLUS
CN Pyrimidine, 5-bromo-2-chloro-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



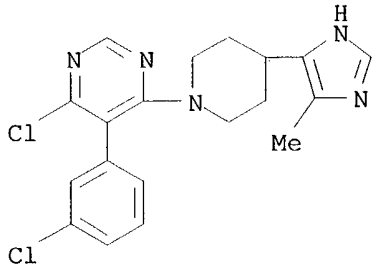
RN 335063-15-5 CAPLUS
CN Thieno[2,3-d]pyrimidine, 5-methyl-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



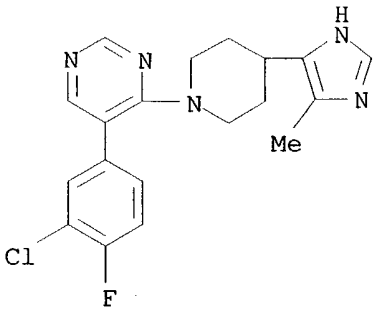
RN 335063-16-6 CAPLUS
CN Pyrimidine, 4,5-dimethyl-6-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 335063-17-7 CAPLUS
CN Pyrimidine, 4-chloro-5-(3-chlorophenyl)-6-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



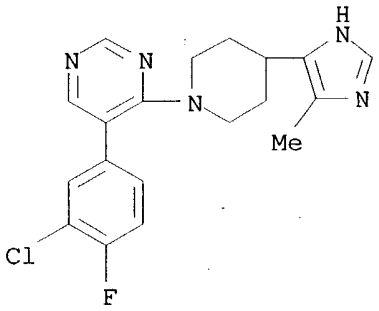
RN 335063-18-8 CAPLUS
CN Pyrimidine, 5-(3-chloro-4-fluorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 335063-19-9 CAPLUS
CN Pyrimidine, 5-(3-chloro-4-fluorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

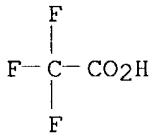
CM 1

CRN 335063-18-8
CMF C19 H19 Cl F N5

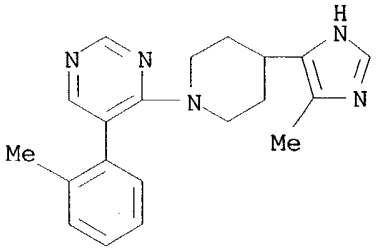


CM 2

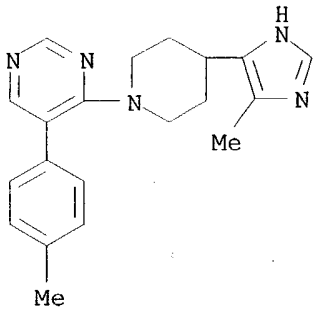
CRN 76-05-1
CMF C2 H F3 O2



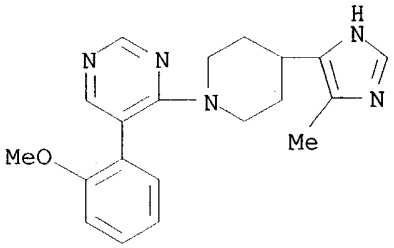
RN 335063-20-2 CAPLUS
CN Pyrimidine, 4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-(2-methylphenyl)- (9CI) (CA INDEX NAME)



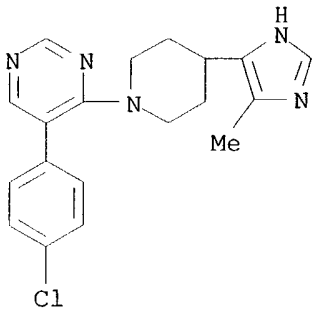
RN 335063-21-3 CAPLUS
CN Pyrimidine, 4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-(4-methylphenyl)- (9CI) (CA INDEX NAME)



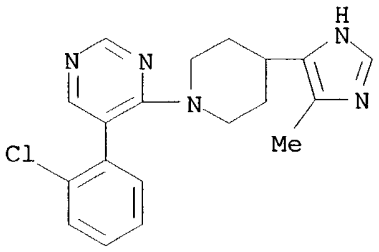
RN 335063-22-4 CAPLUS
CN Pyrimidine, 5-(2-methoxyphenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



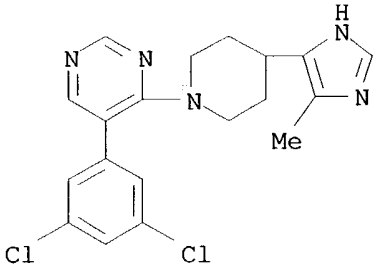
RN 335063-23-5 CAPLUS
CN Pyrimidine, 5-(4-chlorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



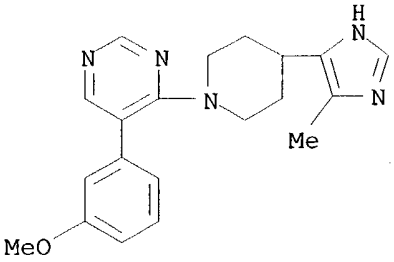
RN 335063-24-6 CAPLUS
CN Pyrimidine, 5-(2-chlorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



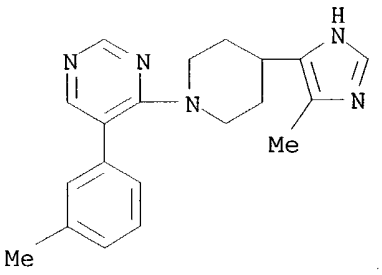
RN 335063-25-7 CAPLUS
CN Pyrimidine, 5-(3,5-dichlorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



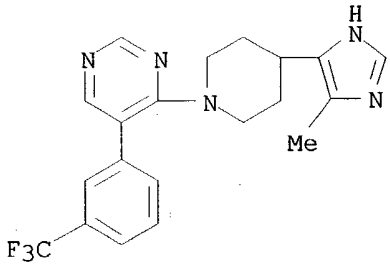
RN 335063-26-8 CAPLUS
CN Pyrimidine, 5-(3-methoxyphenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



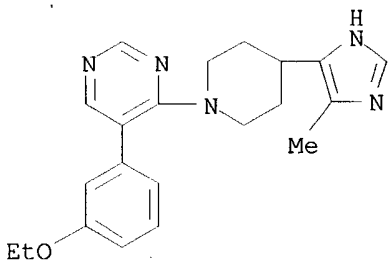
RN 335063-27-9 CAPLUS
CN Pyrimidine, 4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-(3-methylphenyl)- (9CI) (CA INDEX NAME)



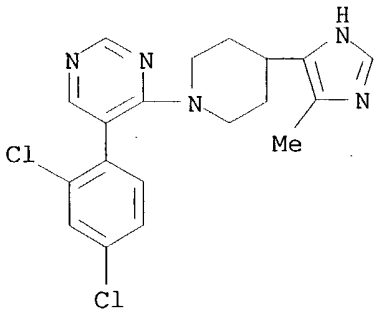
RN 335063-28-0 CAPLUS
CN Pyrimidine, 4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



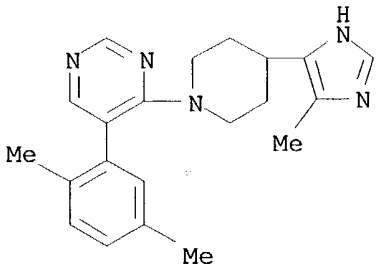
RN 335063-29-1 CAPLUS
CN Pyrimidine, 5-(3-ethoxyphenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



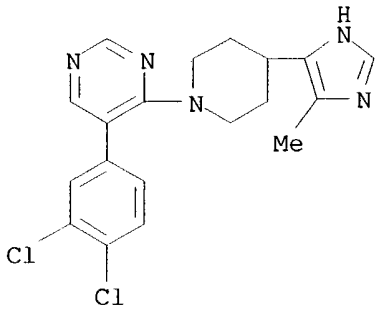
RN 335063-30-4 CAPLUS
CN Pyrimidine, 5-(2,4-dichlorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



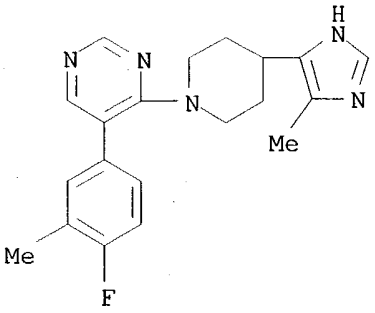
RN 335063-31-5 CAPLUS
CN Pyrimidine, 5-(2,5-dimethylphenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



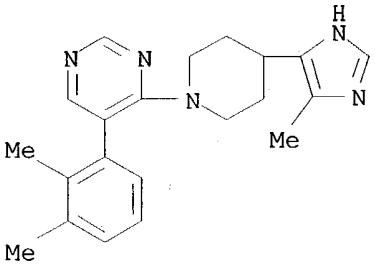
RN 335063-32-6 CAPLUS
CN Pyrimidine, 5-(3,4-dichlorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



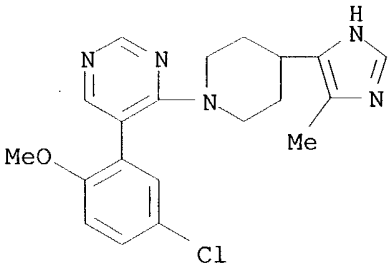
RN 335063-33-7 CAPLUS
CN Pyrimidine, 5-(4-fluoro-3-methylphenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



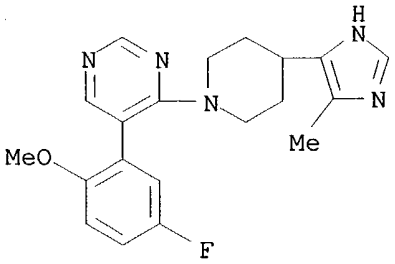
RN 335063-34-8 CAPLUS
CN Pyrimidine, 5-(2,3-dimethylphenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



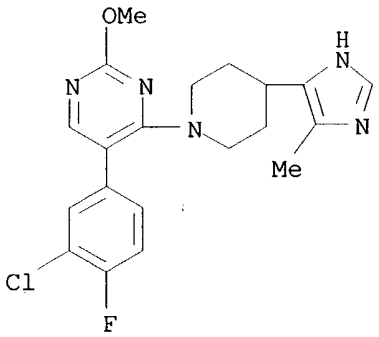
RN 335063-35-9 CAPLUS
CN Pyrimidine, 5-(5-chloro-2-methoxyphenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



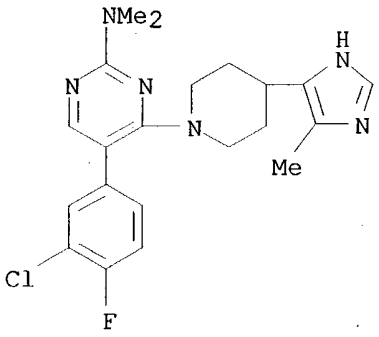
RN 335063-36-0 CAPLUS
CN Pyrimidine, 5-(5-fluoro-2-methoxyphenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



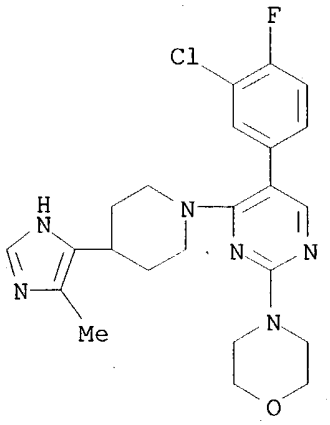
RN 335063-37-1 CAPLUS
CN Pyrimidine, 5-(3-chloro-4-fluorophenyl)-2-methoxy-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



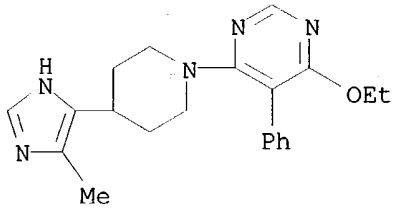
RN 335063-38-2 CAPLUS
CN 2-Pyrimidinamine, 5-(3-chloro-4-fluorophenyl)-N,N-dimethyl-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 335063-39-3 CAPLUS
CN Morpholine, 4-[5-(3-chloro-4-fluorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-2-pyrimidinyl]- (9CI) (CA INDEX NAME)



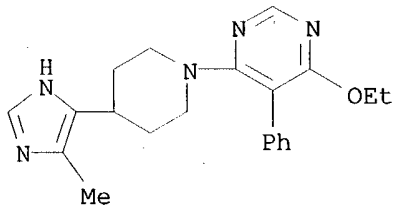
RN 335063-40-6 CAPLUS
CN Pyrimidine, 4-ethoxy-6-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-phenyl- (9CI) (CA INDEX NAME)



RN 335063-41-7 CAPLUS
CN Pyrimidine, 4-ethoxy-6-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-phenyl-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

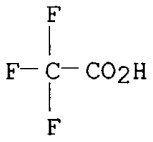
CM 1

CRN 335063-40-6
CMF C21 H25 N5 O

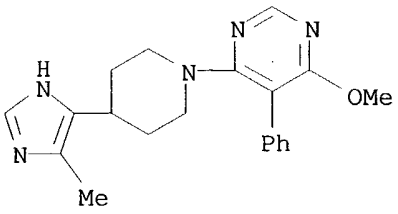


CM 2

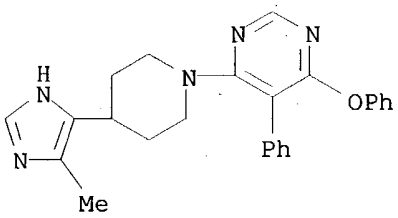
CRN 76-05-1
CMF C2 H F3 O2



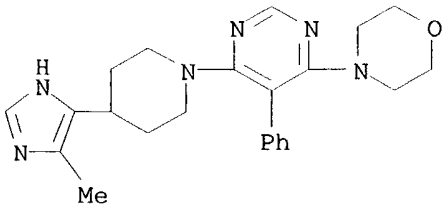
RN 335063-42-8 CAPLUS
CN Pyrimidine, 4-methoxy-6-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-phenyl- (9CI) (CA INDEX NAME)



RN 335063-43-9 CAPLUS
CN Pyrimidine, 4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-6-phenoxy-5-phenyl- (9CI) (CA INDEX NAME)



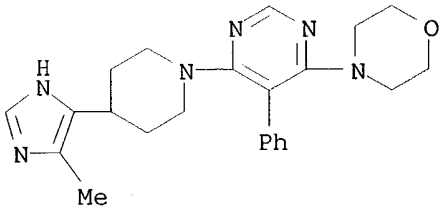
RN 335063-44-0 CAPLUS
CN Morpholine, 4-[6-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-phenyl-4-pyrimidinyl]- (9CI) (CA INDEX NAME)



RN 335063-45-1 CAPLUS
CN Morpholine, 4-[6-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-phenyl-4-pyrimidinyl]-, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

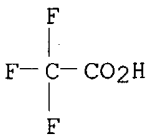
CM 1

CRN 335063-44-0
CMF C23 H28 N6 O

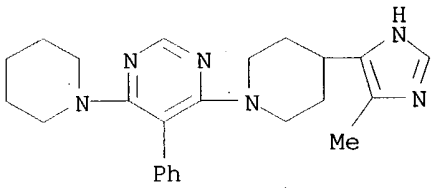


CM 2

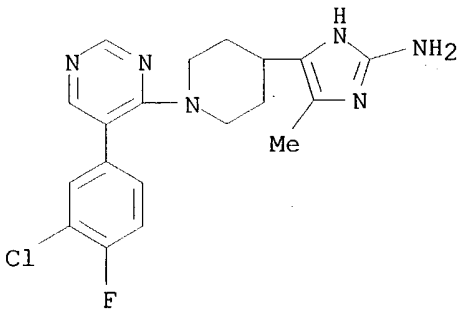
CRN 76-05-1
CMF C2 H F3 O2



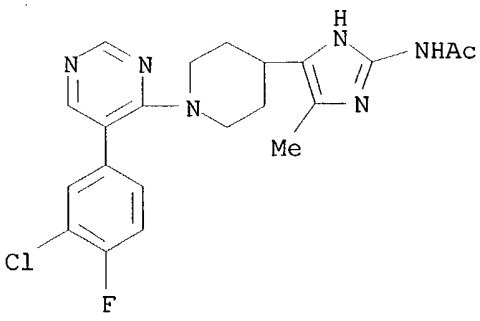
RN 335063-46-2 CAPLUS
CN Pyrimidine, 4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-phenyl-6-(1-piperidinyl)- (9CI) (CA INDEX NAME)



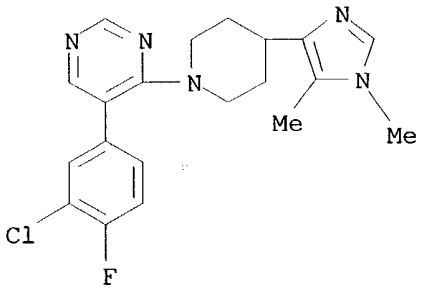
RN 335063-47-3 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[5-(3-chloro-4-fluorophenyl)-4-pyrimidinyl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



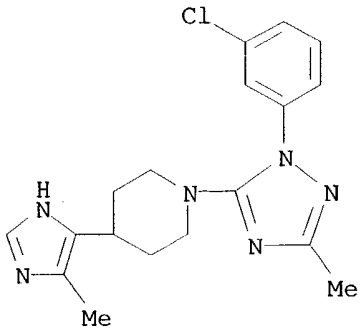
RN 335063-48-4 CAPLUS
CN Acetamide, N-[4-[1-[5-(3-chloro-4-fluorophenyl)-4-pyrimidinyl]-4-piperidinyl]-5-methyl-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)



RN 335063-49-5 CAPLUS
CN Pyrimidine, 5-(3-chloro-4-fluorophenyl)-4-[4-(1,5-dimethyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



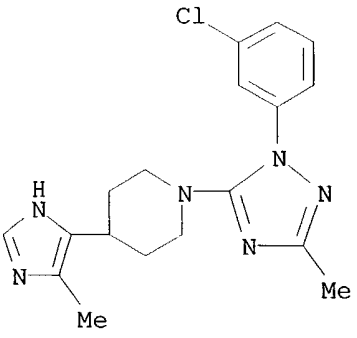
RN 335063-54-2 CAPLUS
CN Piperidine, 1-[1-(3-chlorophenyl)-3-methyl-1H-1,2,4-triazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



RN 335063-55-3 CAPLUS
CN Piperidine, 1-[1-(3-chlorophenyl)-3-methyl-1H-1,2,4-triazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)-, trifluoroacetate (9CI) (CA INDEX NAME)

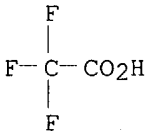
CM 1

CRN 335063-54-2
CMF C18 H21 Cl N6

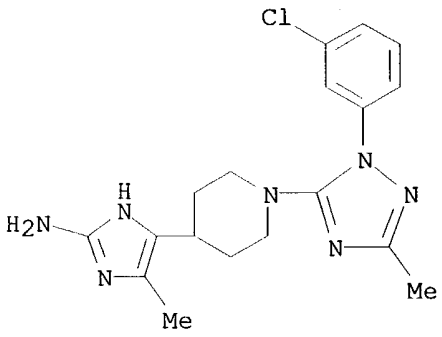


CM 2

CRN 76-05-1
CMF C2 H F3 O2



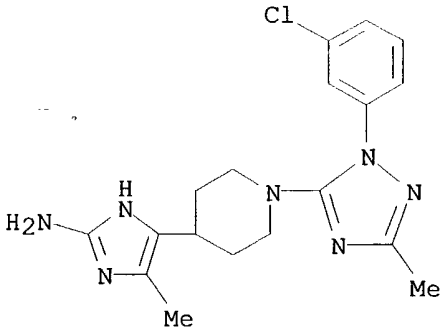
RN 335063-56-4 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(3-chlorophenyl)-3-methyl-1H-1,2,4-triazol-5-yl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



RN 335063-57-5 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(3-chlorophenyl)-3-methyl-1H-1,2,4-triazol-5-yl]-4-piperidinyl]-5-methyl-, trifluoroacetate (9CI) (CA INDEX NAME)

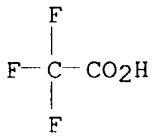
CM 1

CRN 335063-56-4
CMF C18 H22 Cl N7

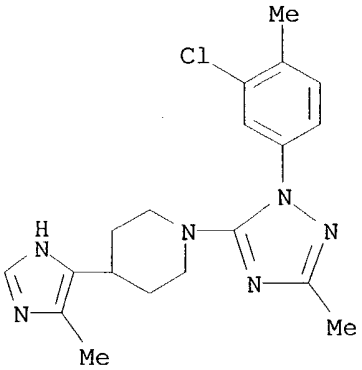


CM 2

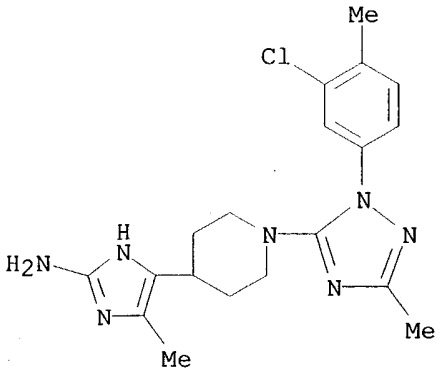
CRN 76-05-1
CMF C2 H F3 O2



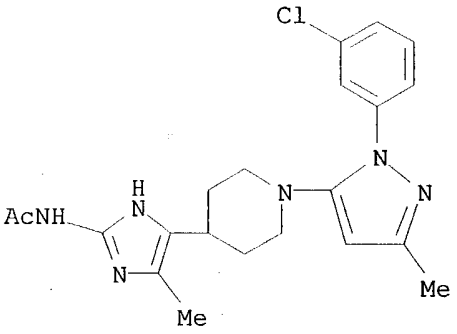
RN 335063-58-6 CAPLUS
CN Piperidine, 1-[1-(3-chloro-4-methylphenyl)-3-methyl-1H-1,2,4-triazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



RN 335063-59-7 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(3-chloro-4-methylphenyl)-3-methyl-1H-1,2,4-triazol-5-yl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



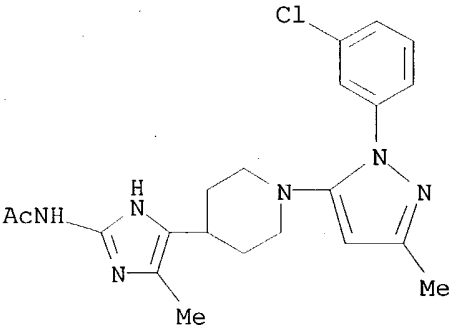
RN 335063-69-9 CAPLUS
CN Acetamide, N-[4-[1-[1-(3-chlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-piperidinyl]-5-methyl-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)



RN 335063-70-2 CAPLUS
CN Acetamide, N-[4-[1-[1-(3-chlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-piperidinyl]-5-methyl-1H-imidazol-2-yl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

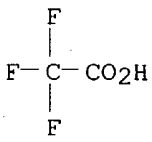
CM 1

CRN 335063-69-9
CMF C21 H25 Cl N6 O

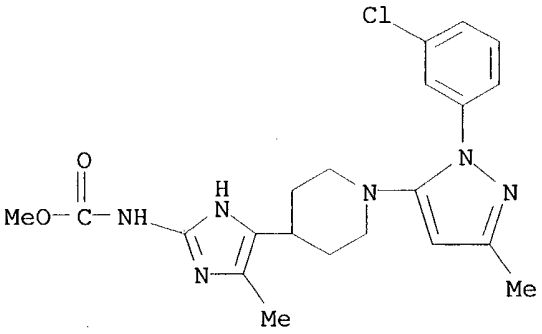


CM 2

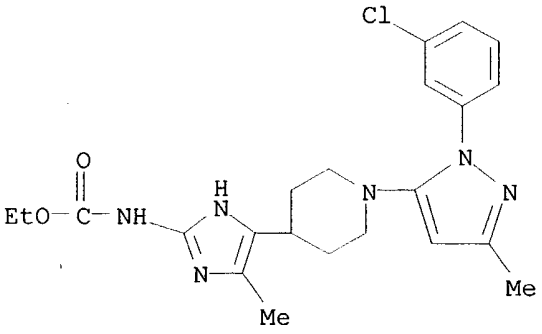
CRN 76-05-1
CMF C2 H F3 O2



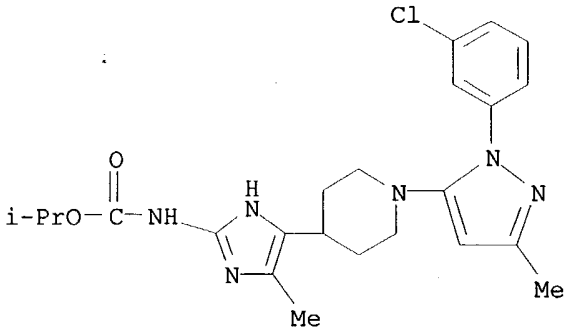
RN 335063-71-3 CAPLUS
CN Carbamic acid, [4-[1-[1-(3-chlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-piperidinyl]-5-methyl-1H-imidazol-2-yl]-, methyl ester (9CI) (CA INDEX NAME)



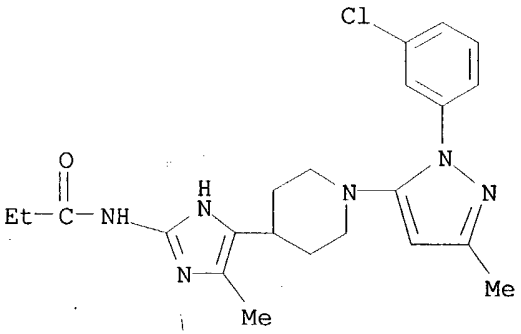
RN 335063-72-4 CAPLUS
CN Carbamic acid, [4-[1-[1-(3-chlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-piperidinyl]-5-methyl-1H-imidazol-2-yl]-, ethyl ester (9CI) (CA INDEX NAME)



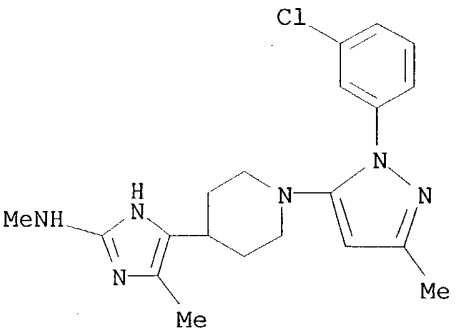
RN 335063-73-5 CAPLUS
CN Carbamic acid, [4-[1-[1-(3-chlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-piperidinyl]-5-methyl-1H-imidazol-2-yl]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



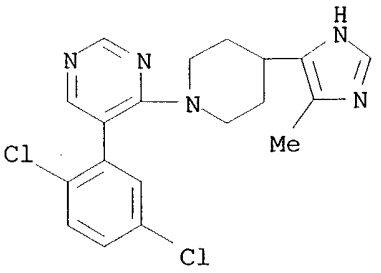
RN 335063-74-6 CAPLUS
CN Propanamide, N-[4-[1-[1-(3-chlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-piperidinyl]-5-methyl-1H-imidazol-2-yl]- (9CI) (CA INDEX NAME)



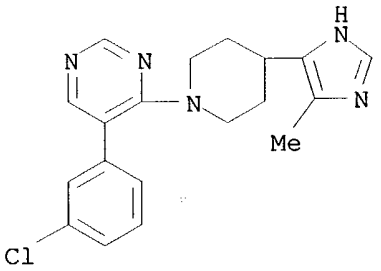
RN 335063-75-7 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(3-chlorophenyl)-3-methyl-1H-pyrazol-5-yl]-4-piperidinyl]-N,5-dimethyl- (9CI) (CA INDEX NAME)



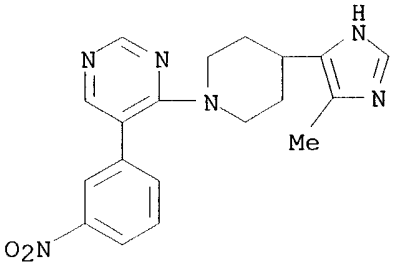
RN 335063-77-9 CAPLUS
CN Pyrimidine, 5-(2,5-dichlorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



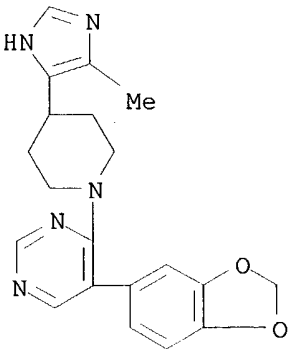
RN 335063-78-0 CAPLUS
CN Pyrimidine, 5-(3-chlorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



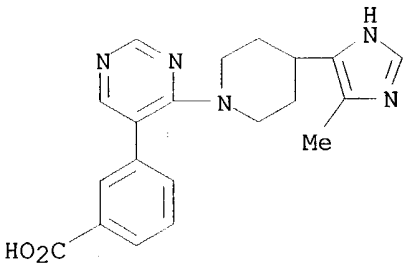
RN 335063-79-1 CAPLUS
CN Pyrimidine, 4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-(3-nitrophenyl)- (9CI) (CA INDEX NAME)



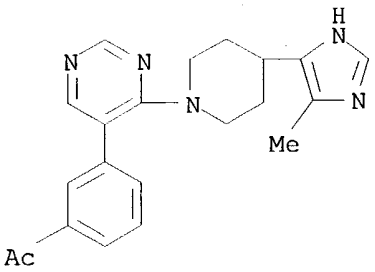
RN 335063-80-4 CAPLUS
CN Pyrimidine, 5-(1,3-benzodioxol-5-yl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



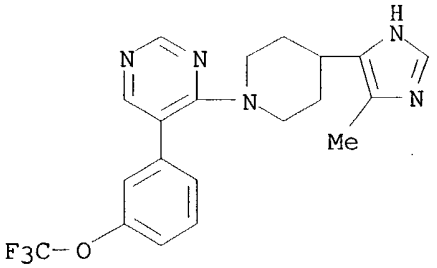
RN 335063-81-5 CAPLUS
CN Benzoic acid, 3-[4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-pyrimidinyl]- (9CI) (CA INDEX NAME)



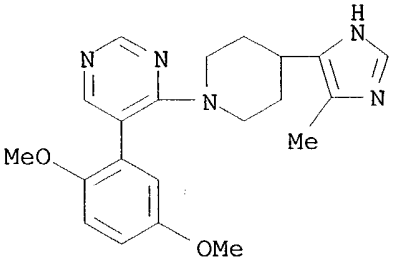
RN 335063-82-6 CAPLUS
CN Ethanone, 1-[3-[4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-pyrimidinyl]phenyl]- (9CI) (CA INDEX NAME)



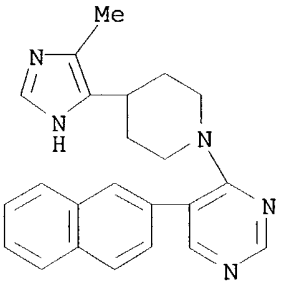
RN 335063-83-7 CAPLUS
CN Pyrimidine, 4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-[3-(trifluoromethoxy)phenyl]- (9CI) (CA INDEX NAME)



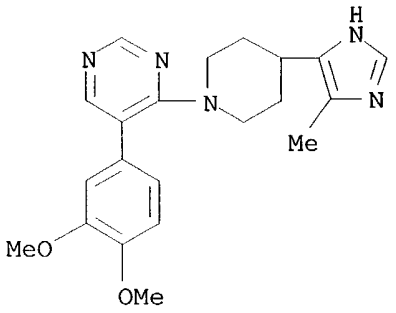
RN 335063-84-8 CAPLUS
CN Pyrimidine, 5-(2,5-dimethoxyphenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



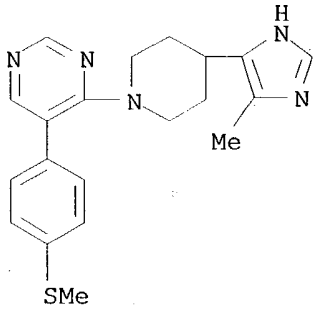
RN 335063-85-9 CAPLUS
CN Pyrimidine, 4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-(2-naphthalenyl)- (9CI) (CA INDEX NAME)



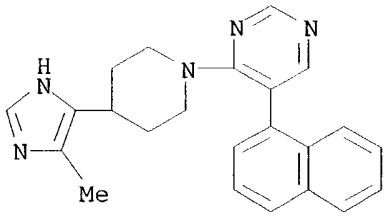
RN 335063-86-0 CAPLUS
CN Pyrimidine, 5-(3,4-dimethoxyphenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



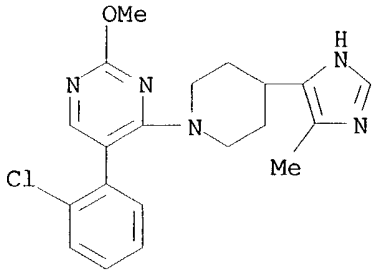
RN 335063-87-1 CAPLUS
CN Pyrimidine, 4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-[4-(methylthio)phenyl]- (9CI) (CA INDEX NAME)



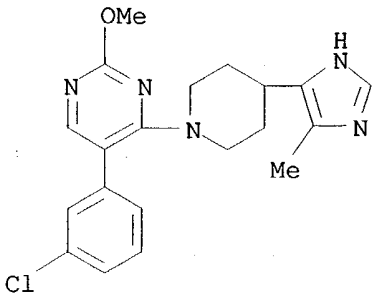
RN 335063-88-2 CAPLUS
CN Pyrimidine, 4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-(1-naphthalenyl)- (9CI) (CA INDEX NAME)



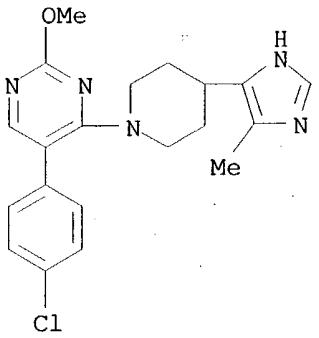
RN 335063-89-3 CAPLUS
CN Pyrimidine, 5-(2-chlorophenyl)-2-methoxy-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



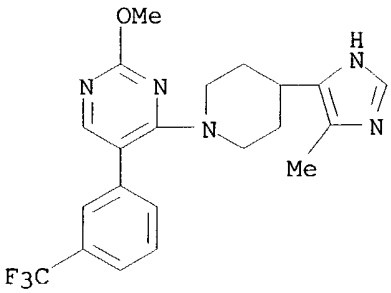
RN 335063-90-6 CAPLUS
CN Pyrimidine, 5-(3-chlorophenyl)-2-methoxy-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



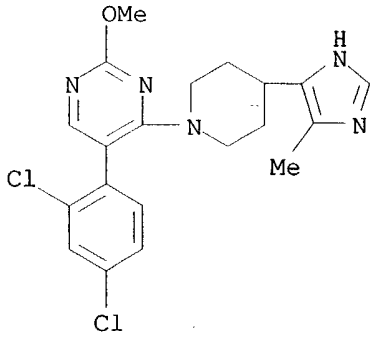
RN 335063-91-7 CAPLUS
CN Pyrimidine, 5-(4-chlorophenyl)-2-methoxy-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



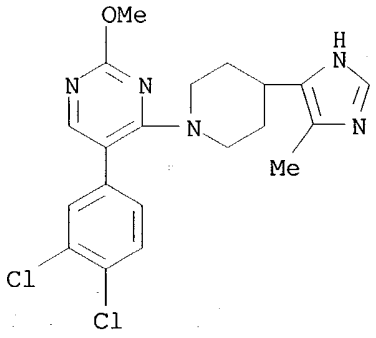
RN 335063-92-8 CAPLUS
CN Pyrimidine, 2-methoxy-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



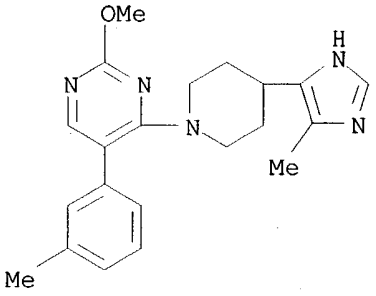
RN 335063-93-9 CAPLUS
CN Pyrimidine, 5-(2,4-dichlorophenyl)-2-methoxy-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



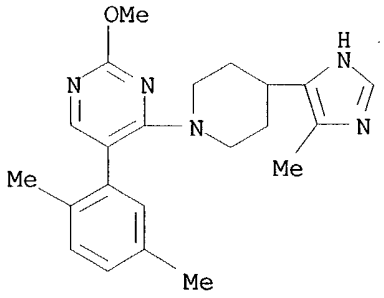
RN 335063-94-0 CAPLUS
CN Pyrimidine, 5-(3,4-dichlorophenyl)-2-methoxy-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



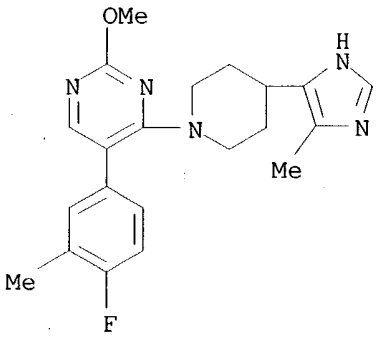
RN 335063-95-1 CAPLUS
CN Pyrimidine, 2-methoxy-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-(3-methylphenyl)- (9CI) (CA INDEX NAME)



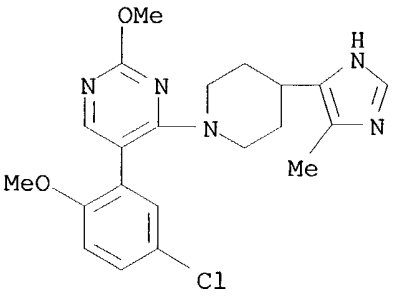
RN 335063-96-2 CAPLUS
CN Pyrimidine, 5-(2,5-dimethylphenyl)-2-methoxy-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



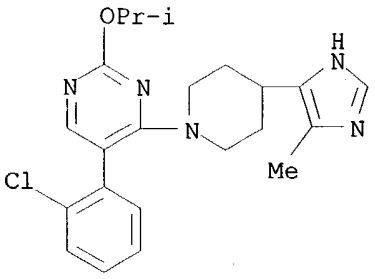
RN 335063-97-3 CAPLUS
CN Pyrimidine, 5-(4-fluoro-3-methylphenyl)-2-methoxy-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



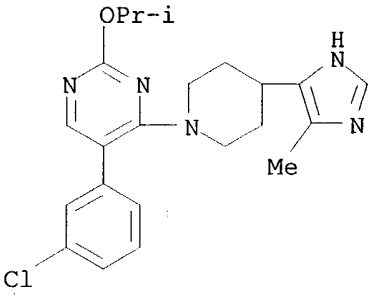
RN 335063-98-4 CAPLUS
CN Pyrimidine, 5-(5-chloro-2-methoxyphenyl)-2-methoxy-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



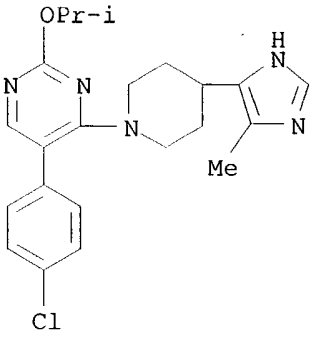
RN 335063-99-5 CAPLUS
CN Pyrimidine, 5-(2-chlorophenyl)-2-(1-methylethoxy)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



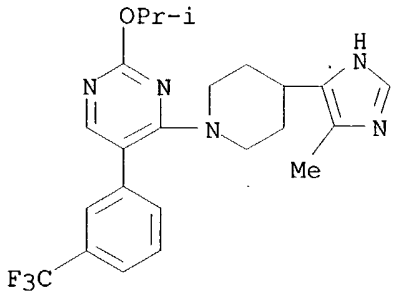
RN 335064-00-1 CAPLUS
CN Pyrimidine, 5-(3-chlorophenyl)-2-(1-methylethoxy)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



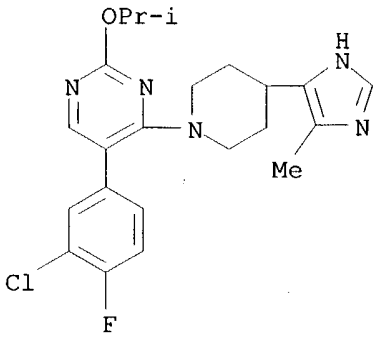
RN 335064-01-2 CAPLUS
CN Pyrimidine, 5-(4-chlorophenyl)-2-(1-methylethoxy)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



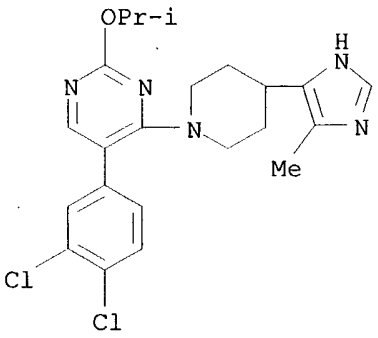
RN 335064-02-3 CAPLUS
CN Pyrimidine, 2-(1-methylethoxy)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



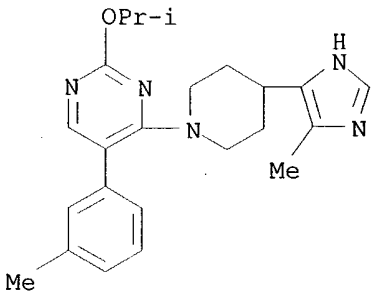
RN 335064-03-4 CAPLUS
CN Pyrimidine, 5-(3-chloro-4-fluorophenyl)-2-(1-methylethoxy)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



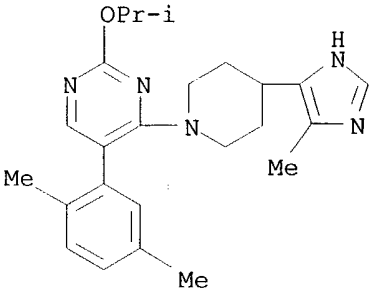
RN 335064-04-5 CAPLUS
CN Pyrimidine, 5-(3,4-dichlorophenyl)-2-(1-methylethoxy)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



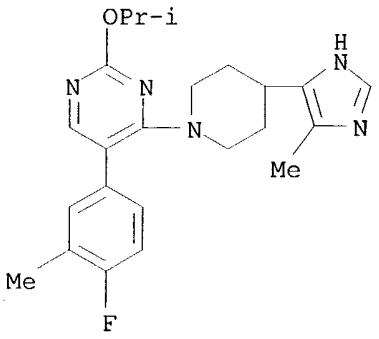
RN 335064-05-6 CAPLUS
CN Pyrimidine, 2-(1-methylethoxy)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-(3-methylphenyl)- (9CI) (CA INDEX NAME)



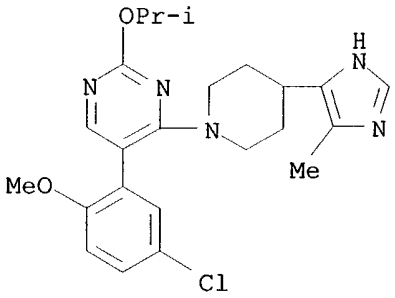
RN 335064-06-7 CAPLUS
CN Pyrimidine, 5-(2,5-dimethylphenyl)-2-(1-methylethoxy)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



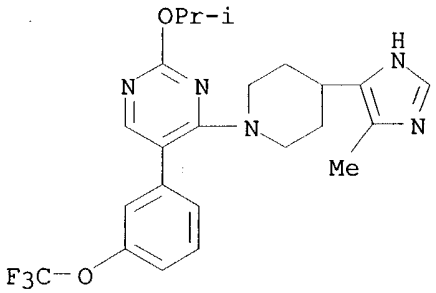
RN 335064-07-8 CAPLUS
CN Pyrimidine, 5-(4-fluoro-3-methylphenyl)-2-(1-methylethoxy)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



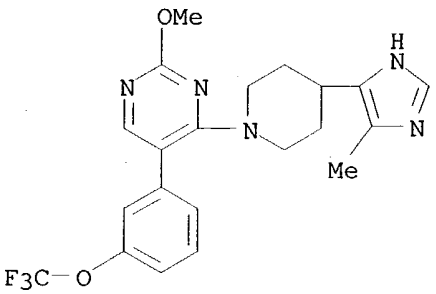
RN 335064-08-9 CAPLUS
CN Pyrimidine, 5-(5-chloro-2-methoxyphenyl)-2-(1-methylethoxy)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



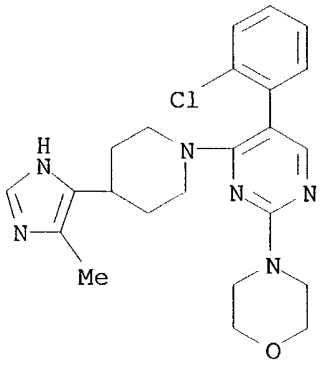
RN 335064-09-0 CAPLUS
CN Pyrimidine, 2-(1-methylethoxy)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-[3-(trifluoromethoxy)phenyl]- (9CI) (CA INDEX NAME)



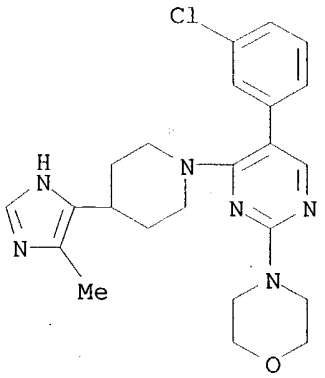
RN 335064-10-3 CAPLUS
CN Pyrimidine, 2-methoxy-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-[3-(trifluoromethoxy)phenyl]- (9CI) (CA INDEX NAME)



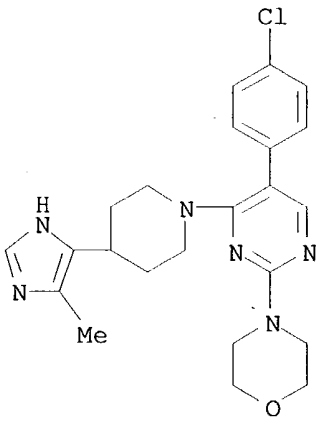
RN 335064-11-4 CAPLUS
CN Morpholine, 4-[5-(2-chlorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-2-pyrimidinyl]- (9CI) (CA INDEX NAME)



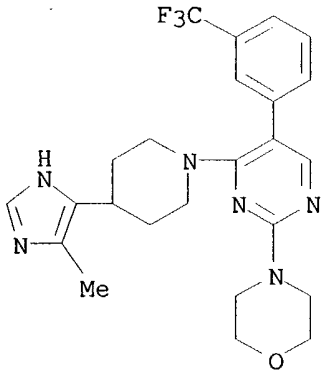
RN 335064-12-5 CAPLUS
CN Morpholine, 4-[5-(3-chlorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-2-pyrimidinyl]- (9CI) (CA INDEX NAME)



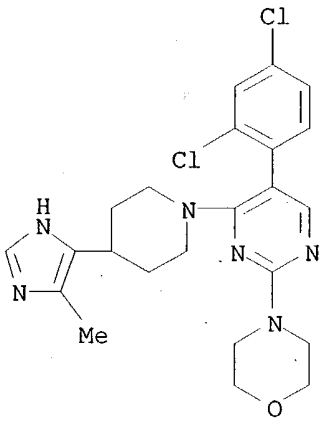
RN 335064-13-6 CAPLUS
CN Morpholine, 4-[5-(4-chlorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-2-pyrimidinyl]- (9CI) (CA INDEX NAME)



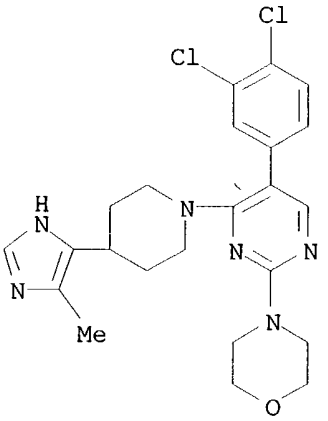
RN 335064-14-7 CAPLUS
CN Morpholine, 4-[4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-[3-(trifluoromethyl)phenyl]-2-pyrimidinyl]- (9CI) (CA INDEX NAME)



RN 335064-15-8 CAPLUS
CN Morpholine, 4-[5-(2,4-dichlorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-2-pyrimidinyl]- (9CI) (CA INDEX NAME)

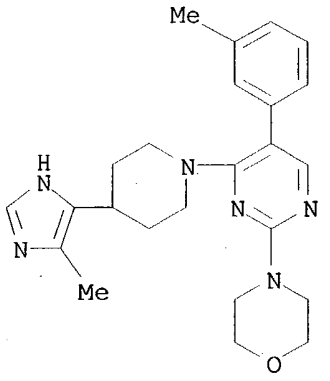


RN 335064-16-9 CAPLUS
CN Morpholine, 4-[5-(3,4-dichlorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-2-pyrimidinyl]- (9CI) (CA INDEX NAME)

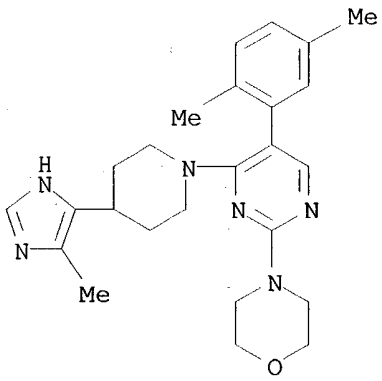


RN 335064-17-0 CAPLUS
CN Morpholine, 4-[4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-(3-

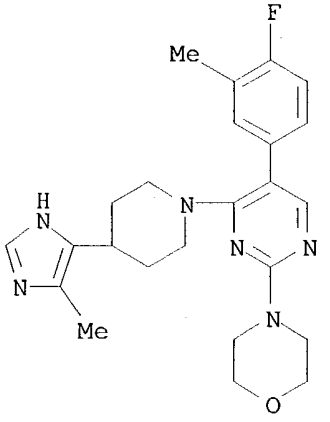
methylphenyl)-2-pyrimidinyl]- (9CI) (CA INDEX NAME)



RN 335064-18-1 CAPLUS
CN Morpholine, 4-[5-(2,5-dimethylphenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-2-pyrimidinyl]- (9CI) (CA INDEX NAME)

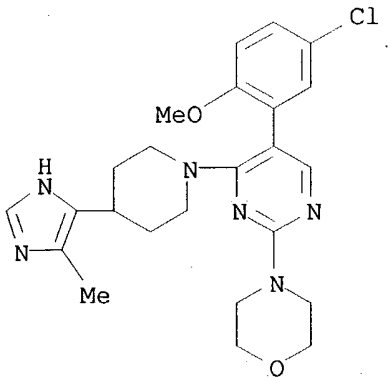


RN 335064-19-2 CAPLUS
CN Morpholine, 4-[5-(4-fluoro-3-methylphenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-2-pyrimidinyl]- (9CI) (CA INDEX NAME)

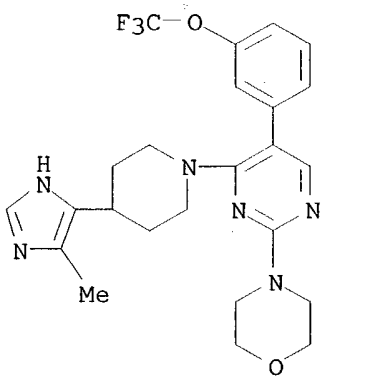


RN 335064-20-5 CAPLUS

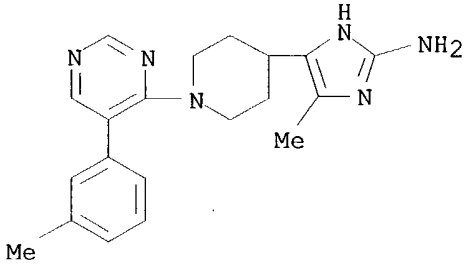
CN Morpholine, 4-[5-(5-chloro-2-methoxyphenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-2-pyrimidinyl]- (9CI) (CA INDEX NAME)



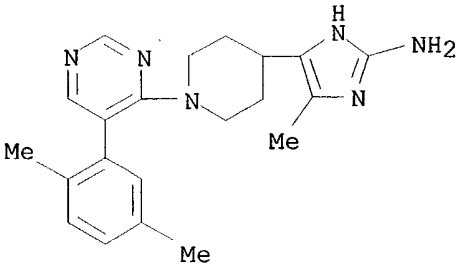
RN 335064-21-6 CAPLUS
CN Morpholine, 4-[4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-5-[3-(trifluoromethoxy)phenyl]-2-pyrimidinyl]- (9CI) (CA INDEX NAME)



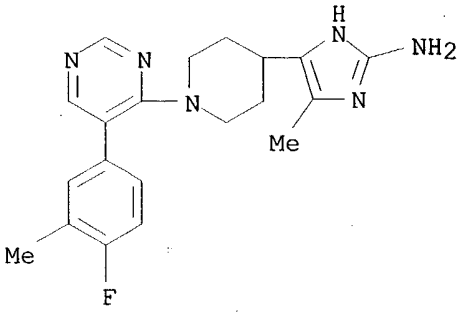
RN 335064-22-7 CAPLUS
CN 1H-Imidazol-2-amine, 4-methyl-5-[1-[5-(3-methylphenyl)-4-pyrimidinyl]-4-piperidinyl]- (9CI) (CA INDEX NAME)



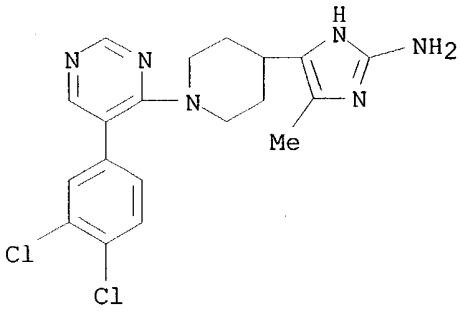
RN 335064-23-8 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[5-(2,5-dimethylphenyl)-4-pyrimidinyl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



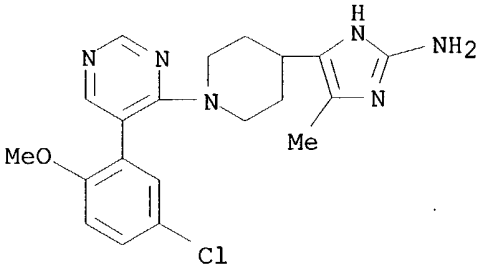
RN 335064-24-9 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[5-(4-fluoro-3-methylphenyl)-4-pyrimidinyl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



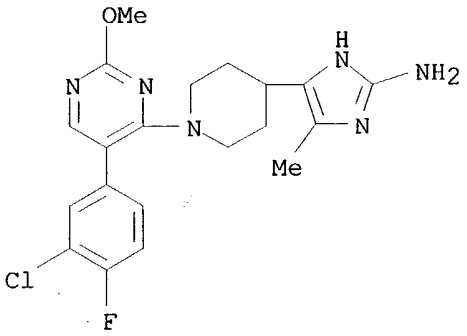
RN 335064-25-0 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[5-(3,4-dichlorophenyl)-4-pyrimidinyl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



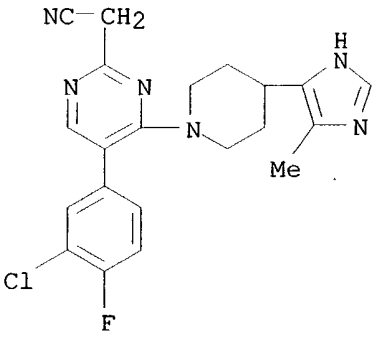
RN 335064-26-1 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[5-(5-chloro-2-methoxyphenyl)-4-pyrimidinyl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



RN 335064-27-2 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[5-(3-chloro-4-fluorophenyl)-2-methoxy-4-pyrimidinyl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



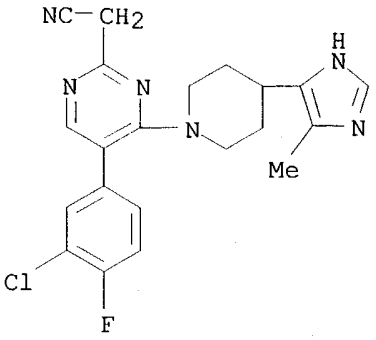
RN 335064-28-3 CAPLUS
CN 2-Pyrimidineacetonitrile, 5-(3-chloro-4-fluorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 335064-29-4 CAPLUS
CN 2-Pyrimidineacetonitrile, 5-(3-chloro-4-fluorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, trifluoroacetate (9CI) (CA INDEX NAME)

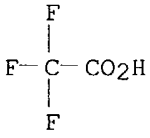
CM 1

CRN 335064-28-3
CMF C21 H20 Cl F N6

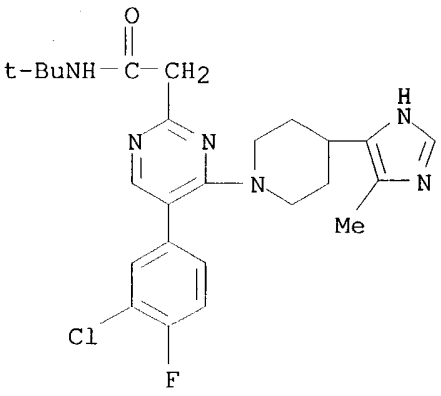


CM 2

CRN 76-05-1
CMF C2 H F3 O2



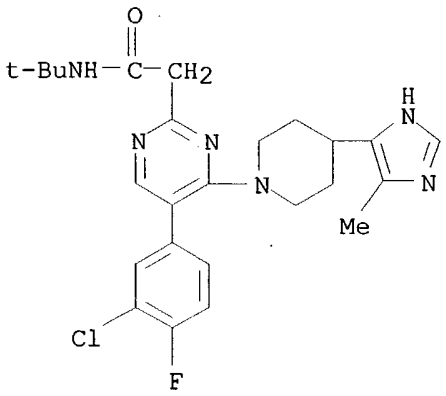
RN 335064-30-7 CAPLUS
CN 2-Pyrimidineacetamide, 5-(3-chloro-4-fluorophenyl)-N-(1,1-dimethylethyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 335064-31-8 CAPLUS
CN 2-Pyrimidineacetamide, 5-(3-chloro-4-fluorophenyl)-N-(1,1-dimethylethyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, trifluoroacetate (9CI) (CA INDEX NAME)

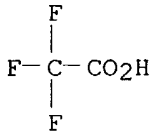
CM 1

CRN 335064-30-7
CMF C25 H30 Cl F N6 O

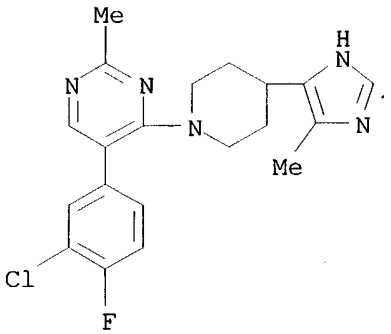


CM 2

CRN 76-05-1
CMF C2 H F3 O2



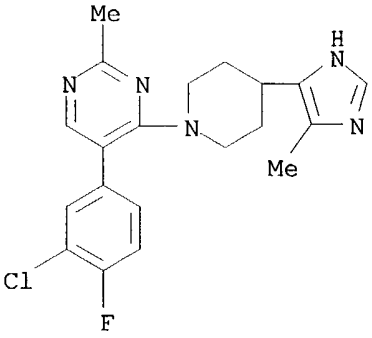
RN 335064-32-9 CAPLUS
CN Pyrimidine, 5-(3-chloro-4-fluorophenyl)-2-methyl-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 335064-33-0 CAPLUS
CN Pyrimidine, 5-(3-chloro-4-fluorophenyl)-2-methyl-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, trifluoroacetate (9CI) (CA INDEX NAME)

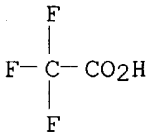
CM 1

CRN 335064-32-9
CMF C20 H21 Cl F N5

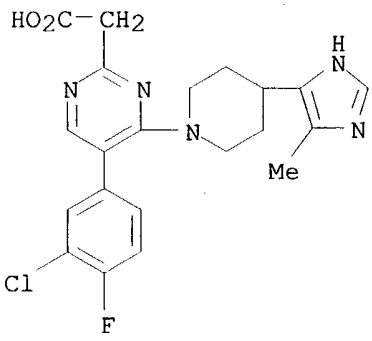


CM 2

CRN 76-05-1
CMF C2 H F3 O2



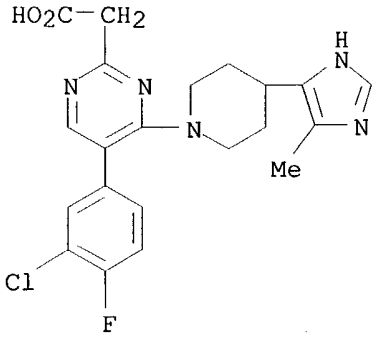
RN 335064-34-1 CAPLUS
CN 2-Pyrimidineacetic acid, 5-(3-chloro-4-fluorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 335064-35-2 CAPLUS
CN 2-Pyrimidineacetic acid, 5-(3-chloro-4-fluorophenyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, trifluoroacetate (9CI) (CA INDEX NAME)

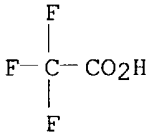
CM 1

CRN 335064-34-1
CMF C21 H21 Cl F N5 O2

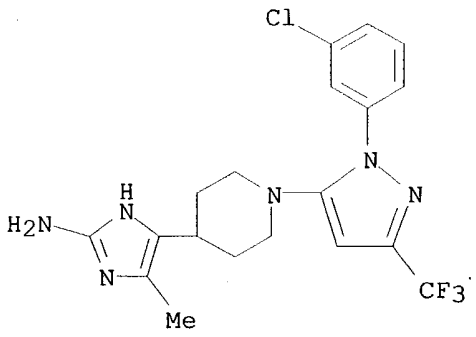


CM 2

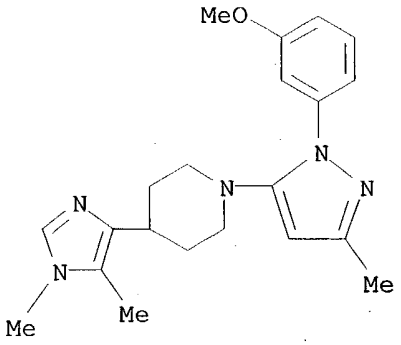
CRN 76-05-1
CMF C2 H F3 O2



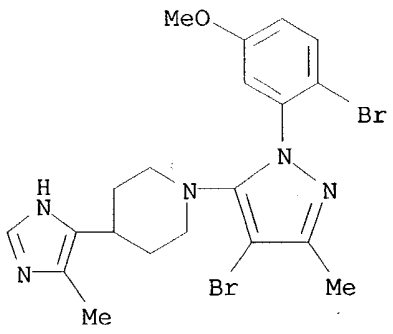
RN 335065-05-9 CAPLUS
CN 1H-Imidazol-2-amine, 4-[1-[1-(3-chlorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-4-piperidinyl]-5-methyl- (9CI) (CA INDEX NAME)



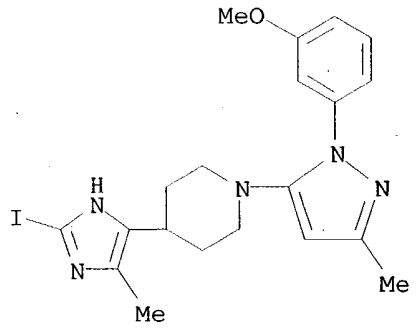
RN 335065-06-0 CAPLUS
CN Piperidine, 4-(1,5-dimethyl-1H-imidazol-4-yl)-1-[1-(3-methoxyphenyl)-3-methyl-1H-pyrazol-5-yl]- (9CI) (CA INDEX NAME)



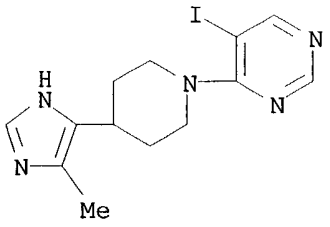
RN 335065-07-1 CAPLUS
CN Piperidine, 1-[4-bromo-1-(2-bromo-5-methoxyphenyl)-3-methyl-1H-pyrazol-5-yl]-4-(5-methyl-1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)



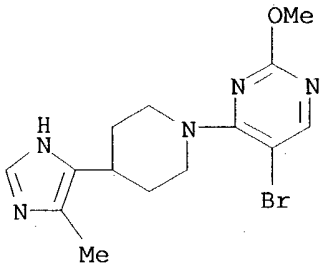
RN 335065-08-2 CAPLUS
CN Piperidine, 4-(2-iodo-5-methyl-1H-imidazol-4-yl)-1-[1-(3-methoxyphenyl)-3-methyl-1H-pyrazol-5-yl]- (9CI) (CA INDEX NAME)



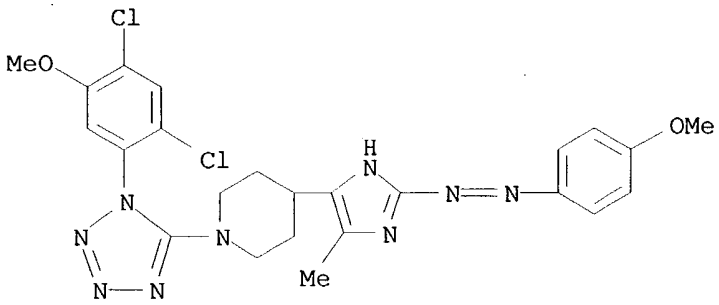
IT **335064-81-8P 335064-82-9P 335064-94-3P**
335064-95-4P 335064-96-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and use of heterocyclic sodium/proton exchange inhibitors)
RN 335064-81-8 CAPLUS
CN Pyrimidine, 5-iodo-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



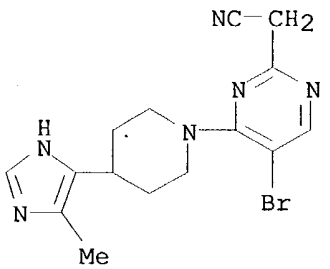
RN 335064-82-9 CAPLUS
CN Pyrimidine, 5-bromo-2-methoxy-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 335064-94-3 CAPLUS
CN Piperidine, 1-[1-(2,4-dichloro-5-methoxyphenyl)-1H-tetrazol-5-yl]-4-[2-[(4-methoxyphenyl)azo]-5-methyl-1H-imidazol-4-yl]- (9CI) (CA INDEX NAME)

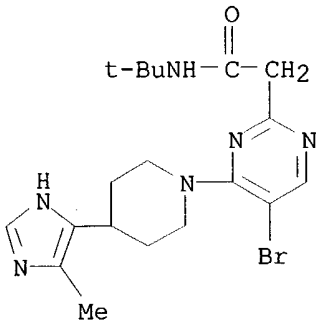


RN 335064-95-4 CAPLUS
CN 2-Pyrimidineacetonitrile, 5-bromo-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 335064-96-5 CAPLUS

CN 2-Pyrimidineacetamide, 5-bromo-N-(1,1-dimethylethyl)-4-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)

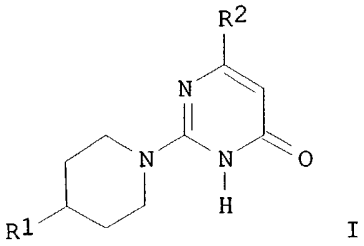


L10 ANSWER 9 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:709746 CAPLUS
DOCUMENT NUMBER: 135:257261
TITLE: Preparation of 2-(piperidin-1-yl)pyrimidones for preventive and/or therapeutic treatment of a neurodegenerative disease caused by abnormal activity of GSK3.beta.
INVENTOR(S): Almario-Garcia, Antonio; Frost, Jonathan Reid; Li-Tak, Adrien
PATENT ASSIGNEE(S): Sanofi-Synthelabo, Fr.; Mitsubishi-Tokyo Pharmaceuticals, Inc.
SOURCE: Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1136489	A1	20010926	EP 2000-400802	20000323
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
WO 2001070728	A1	20010927	WO 2001-EP3639	20010322
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: EP 2000-400801 A 20000323
EP 2000-400802 A 20000323
EP 2000-400803 A 20000323

OTHER SOURCE(S): MARPAT 135:257261
ED Entered STN: 28 Sep 2001
GI

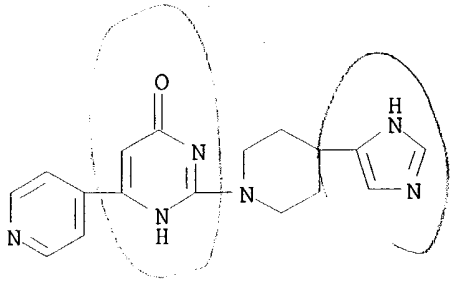


I

AB The title compds. [I; R1 = (un)substituted aryl, heterocyclic ring having 1-4 hetero atoms selected from O, S, and N atoms, (un)substituted alkyl; R2 = pyridyl optionally substituted by alkyl, alkoxy or halo] and their salts, useful for preventive and/or therapeutic treatment of a neurodegenerative disease caused by abnormal activity of GSK3.beta., such as Alzheimer's disease, Parkinson's disease, frontoparietal dementia, corticobasal degeneration, Pick's disease, cerebrovascular accidents, brain and spinal trauma, and peripheral neuropathy, were prepd. and formulated. E.g., a 3-step synthesis of I [R1 = Ph; R2 = 4-pyridyl] was given. All exemplified compds. I showed IC50's of 0.5-10 .mu.M against GSK3.beta..

IT **362467-49-0P 362467-50-3P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 2-(piperidin-1-yl)pyrimidones for preventive and/or therapeutic treatment of a neurodegenerative disease caused by abnormal activity of GSK3.beta.)

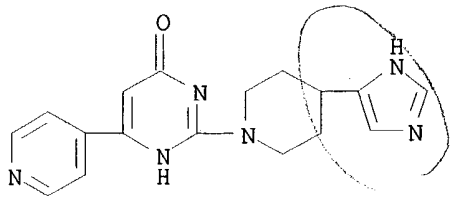
RN 362467-49-0 CAPLUS
CN 4(1H)-Pyrimidinone, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-6-(4-pyridinyl)- (9CI) (CA INDEX NAME)



RN 362467-50-3 CAPLUS
CN 4(1H)-Pyrimidinone, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-6-(4-pyridinyl)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

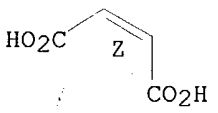
CRN 362467-49-0
CMF C17 H18 N6 O



CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.

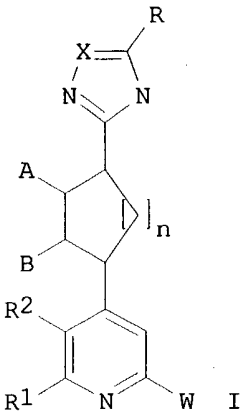


REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

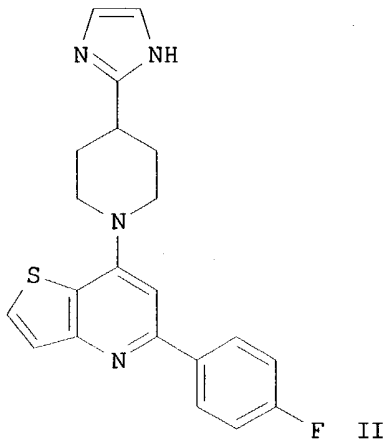
L10 ANSWER 10 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:900645 CAPLUS
DOCUMENT NUMBER: 134:42071
TITLE: Preparation of aryl and heteroaryl substituted thienopyridines and quinolines as GABA brain receptor ligands
INVENTOR(S): Cai, Guolin; Liu, Gang; Albaugh, Pamela A.
PATENT ASSIGNEE(S): Neurogen Corporation, USA
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000077008	A2	20001221	WO 2000-US16731	20000615
WO 2000077008	A3	20010419		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6297256	B1	20011002	US 2000-596031	20000615

PRIORITY APPLN. INFO.: US 1999-139202P P 19990615
OTHER SOURCE(S): MARPAT 134:42071
ED Entered STN: 22 Dec 2000
GI



I



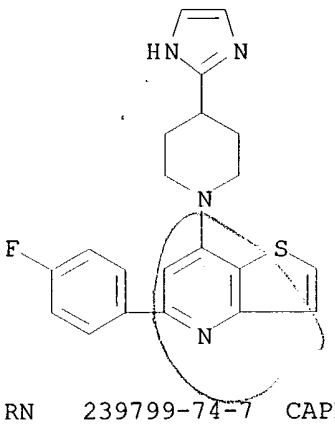
II

AB The title compds. [I; n = 0-3; X = N, CH, C(alkyl); R = H, alkyl, OH, etc.; A,B = H, alkyl; R1 and R2, together with the two carbon atoms to which they are attached, form (un)substituted 5-7 membered aryl, heteroaryl; W = (un)substituted aryl, heteroaryl, thienyl, etc.] which are highly selective agonists, antagonists or inverse agonists for GABAA brain receptors or prodrugs of agonists, antagonists or inverse agonists for GABAA brain receptors and are therefore useful in the diagnosis and treatment of anxiety, depression, Down Syndrome, sleep and seizure disorders, overdose with benzodiazepine drugs and for enhancement of memory, were prepd. E.g., a 3-step synthesis of II was given. The compds. I are effective at 0.1-140 mg/kg/day. The compds. I are also useful as probes for the localization of GABAA receptors in tissue samples.

IT **239799-72-5P 239799-74-7P 239799-75-8P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of aryl and heteroaryl substituted thienopyridines and quinolines as GABA brain receptor ligands)

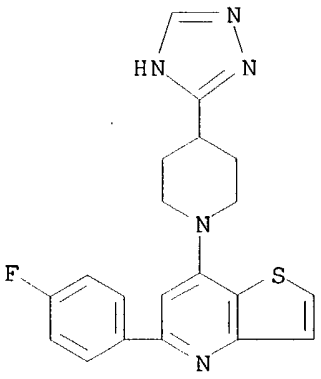
RN 239799-72-5 CAPLUS

CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-imidazol-2-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)

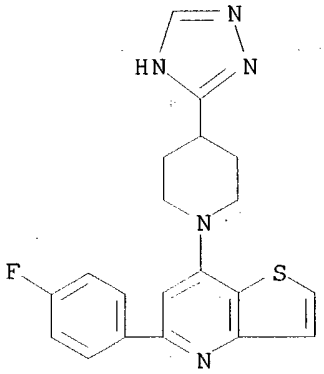


RN 239799-74-7 CAPLUS

CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-1,2,4-triazol-3-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 239799-75-8 CAPLUS
CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-1,2,4-triazol-3-yl)-1-piperidinyl]-, monohydrochloride (9CI) (CA INDEX NAME)



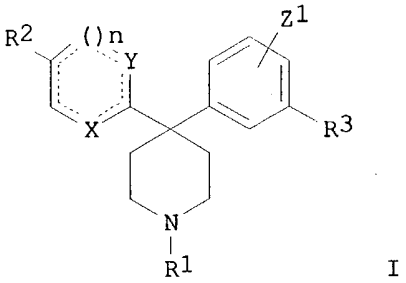
● HCl

L10 ANSWER 11 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:631890 CAPLUS
DOCUMENT NUMBER: 133:222737
TITLE: Preparation of 4-phenyl-4-heteroarylpiperidines as ligands for opioid receptors
INVENTOR(S): Liras, Spiros; McHardy, Stanton Furst
PATENT ASSIGNEE(S): Pfizer Products Inc., USA
SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000247969	A2	20000912	JP 2000-44911	20000222
JP 3370038	B2	20030127		
EP 1038872	A1	20000927	EP 2000-300974	20000208

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

IE, SI, LT, LV, FI, RO
US 6444679 B1 20020903 US 2000-503679 20000214
CA 2299036 AA 20000822 CA 2000-2299036 20000221
BR 2000000901 A 20010821 BR 2000-901 20000222
PRIORITY APPLN. INFO.: US 1999-121156P P 19990222
OTHER SOURCE(S): MARPAT 133:222737
ED Entered STN: 12 Sep 2000
GI



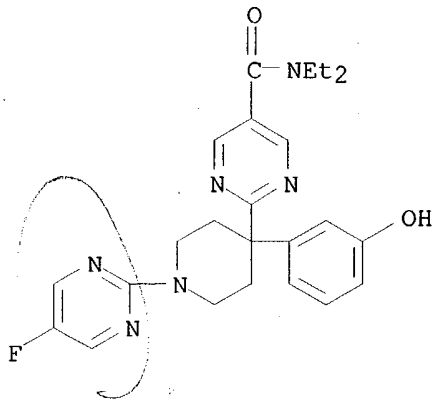
I

AB The title compds. [I; X, Y = O, N, S, CH; provided that the ring contg. X and Y is arom. and both X and Y are not simultaneously O or S; n = 0,1; R1 = H, C0-8 alkoxy-C0-8 alkyl (a total C atoms being .ltoreq.8), aryl, aryl-C1-8 alkyl, heteroaryl, heteroaryl-C1-8 alkyl, heterocyclyl, heterocyclyl-C1-8 alkyl, C3-7 cycloalkyl, C3-7 cycloalkyl-C1-8 alkyl, etc.; R2 = H, aryl, halo, heteroaryl, heterocyclyl, SO2R4, COR4, CONR5R6, CO2R4, C(OH)R5R6, etc.; wherein R4, R5, or R6 is selected from group defined in R1 or R5 and R6 together with bonded N or C atom form 3 to 7-membered ring contg. 0-3 heteroatoms selected from O, N, and S; R3 = HO, hydroxy-C1-6 alkyl, C1-6 alkyl-C1-6 alkoxy, NHSO2R7, C(OH)R7R8, halo, heteroaryl, CONHR7; R7, R8 = H, C1-4 alkyl, C1-4 alkoxy, or C1-4 alkoxy-C1-4 alkyl, wherein each alkyl is optionally substituted with 1-7 F atom(s); Z1 = H,halo, C1-5 alkyl; provided that two-adjacent ring oxygen or nitrogen atoms or ring O atom adjacent to ring S atom do not exist in heterocyclic or heteroaryl portion] are prepd. These compds. regulate bindings to opioid receptors and are useful for the improvement, prevention, or treatment of various disorders or conditions, e.g. (1) inflammatory diseases such as arthritis, psoriasis, and asthma, (2) disorders of respiratory function such as asthma, coughing, and apnea (breathlessness), (3) allergy, (4) gastrointestinal disorders such as gastritis, functional intestinal disorders, irritable bowel syndromes, functional diarrhea, functional dilation, functional pain, indigestion not forming peptic ulcer, gastrointestinal motility disorders, and vomiting, (5) stroke, (6) shock, (7) brain edema, (8) brain injury, (9) spinal cord injury, (10) brain ischemia, (11) brain failure suffered after heart bypass or transplant surgery, (12) urinary or reproductive tract disorders including incontinence, (13) chem. dependence or addiction, (14) chronic pain, (15) acute or neurol. pain, (16) systemic lupus erythematosus, (17) Hodgkin's disease, (18) Sjoegren disease, (19) epilepsy, and (20) rejection of organ transplant or skin grafting (no data). Thus, oxidn. of N,N-diethyl-2-[4-(3-hydroxymethylphenyl)-1-(2-methylpentyl)piperidin-4-yl]pyrimidine-5-carboxamide by tetrapropylammonium perruthenate and N-methylmorpholine N-oxide in CH2Cl2 in the presence of 4.ANG. mol. sieve gave an aldehyde which underwent addn. reaction with methylmagnesium bromide in THF at -70.degree. to give N,N-diethyl-2-[4-[3-(1-hydroxyethyl)phenyl]-1-(2-methylpentyl)piperidin-4-yl]pyrimidine-5-carboxamide.

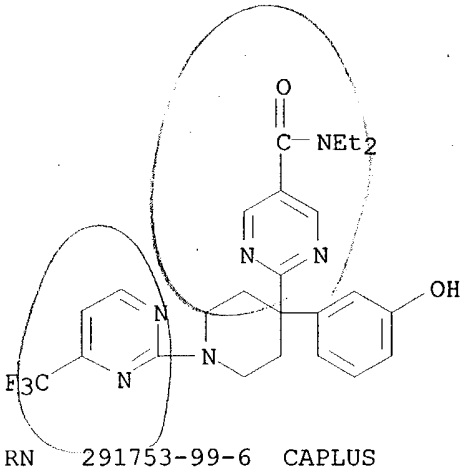
IT **291753-96-3P 291753-97-4P 291753-99-6P**

291754-01-3P 291754-03-5P 291754-38-6P
291754-39-7P 291754-40-0P 291754-41-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of phenylheteroarylpiperidines as ligands for opioid receptors and drugs)

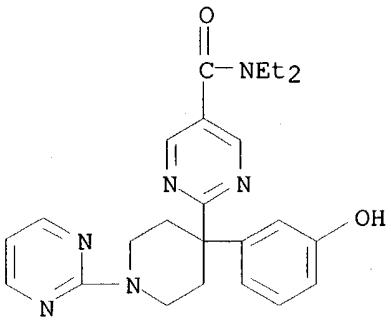
RN 291753-96-3 CAPLUS
CN 5-Pyrimidinecarboxamide, N,N-diethyl-2-[1-(5-fluoro-2-pyrimidinyl)-4-(3-hydroxyphenyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



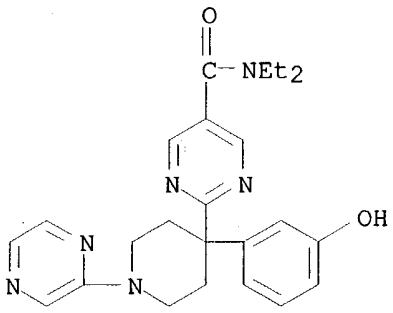
RN 291753-97-4 CAPLUS
CN 5-Pyrimidinecarboxamide, N,N-diethyl-2-[4-(3-hydroxyphenyl)-1-[4-(trifluoromethyl)-2-pyrimidinyl]-4-piperidinyl]- (9CI) (CA INDEX NAME)



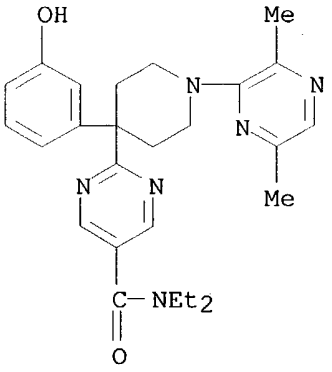
RN 291753-99-6 CAPLUS
CN 5-Pyrimidinecarboxamide, N,N-diethyl-2-[4-(3-hydroxyphenyl)-1-(2-pyrimidinyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



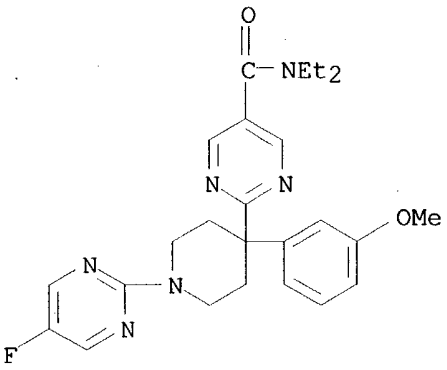
RN 291754-01-3 CAPLUS
CN 5-Pyrimidinecarboxamide, N,N-diethyl-2-[4-(3-hydroxyphenyl)-1-pyrazinyl-4-piperidinyl]- (9CI) (CA INDEX NAME)



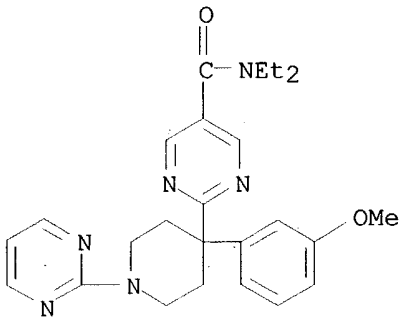
RN 291754-03-5 CAPLUS
CN 5-Pyrimidinecarboxamide, 2-[1-(3,6-dimethylpyrazinyl)-4-(3-hydroxyphenyl)-4-piperidinyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



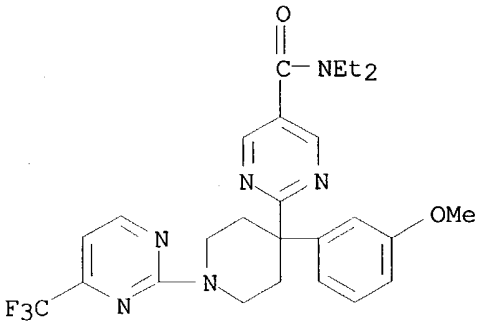
RN 291754-38-6 CAPLUS
CN 5-Pyrimidinecarboxamide, N,N-diethyl-2-[1-(5-fluoro-2-pyrimidinyl)-4-(3-methoxyphenyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



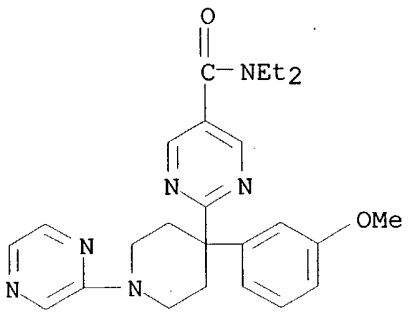
RN 291754-39-7 CAPLUS
CN 5-Pyrimidinecarboxamide, N,N-diethyl-2-[4-(3-methoxyphenyl)-1-(2-pyrimidinyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



RN 291754-40-0 CAPLUS
CN 5-Pyrimidinecarboxamide, N,N-diethyl-2-[4-(3-methoxyphenyl)-1-[4-(trifluoromethyl)-2-pyrimidinyl]-4-piperidinyl]- (9CI) (CA INDEX NAME)



RN 291754-41-1 CAPLUS
CN 5-Pyrimidinecarboxamide, N,N-diethyl-2-[4-(3-methoxyphenyl)-1-pyrazinyl-4-piperidinyl]- (9CI) (CA INDEX NAME)

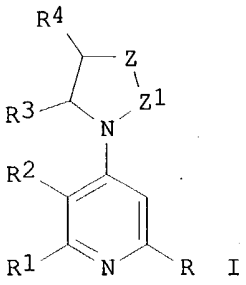


L10 ANSWER 12 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:566053 CAPLUS
DOCUMENT NUMBER: 131:184941
TITLE: Preparation of 1-(5-arylthieno[3,2-b]pyridin-7-yl)piperidine-4-carboxamides and analogs as GABAA receptor ligands
INVENTOR(S): Cai, Guolin; Liu, Gang; Chen, Guoquing; Albaugh, Pamela
PATENT ASSIGNEE(S): Neurogen Corporation, USA
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9943682	A1	19990902	WO 1999-US4223	19990226
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9927931	A1	19990915	AU 1999-27931	19990226
US 6166203	A	20001226	US 1999-259146	19990226
US 2002077474	A1	20020620	US 2000-736497	20001213
US 6423711	B2	20020723		

PRIORITY APPLN. INFO.: US 1998-76099P P 19980226
US 1999-259146 A1 19990226
WO 1999-US4223 W 19990226

OTHER SOURCE(S): MARPAT 131:184941
ED Entered STN: 08 Sep 1999
GI

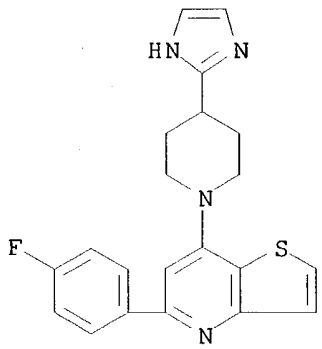


AB Title compds. [I; R = (un)substituted (hetero)aryl; R1R2 = atoms to complete a thiophene, pyridine, or pyrimidine ring; R3,R4 = H or alkyl; Z = O, CHR5, NR5; R5 = H, aryl, CO2H, CONH2, alkoxycarbonyl, etc.; Z1 = bond or (CH2)1-3] were prepd. Thus, 3-amino-2-thiophenecarboxylic acid was cyclocondensed with 4-FC6H4COCH2CO2Et and the chlorinated product aminated by isonipecotamide to give I (R = C6H4F-4, R1R2 = CH:CHS, R3 = R4 = H, Z = CHCONH2, Z1 = CH2CH2). Data for biol. activity of I were given.

IT **239799-72-5P 239799-74-7P 239799-75-8P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 1-(5-arylthieno[3,2-b]pyridin-7-yl)piperidine-4-carboxamides and analogs as GABAA receptor ligands)

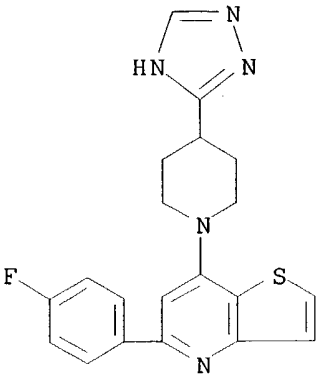
RN 239799-72-5 CAPLUS

CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-imidazol-2-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)

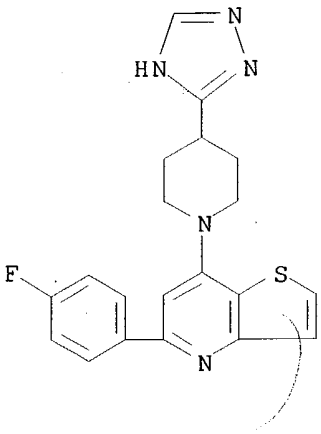


RN 239799-74-7 CAPLUS

CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-1,2,4-triazol-3-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 239799-75-8 CAPLUS
CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-1,2,4-triazol-3-yl)-1-piperidinyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

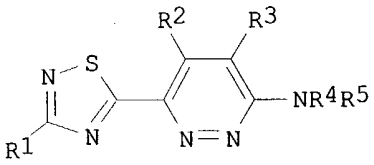
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 13 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:532189 CAPLUS
DOCUMENT NUMBER: 127:176434
TITLE: Angiogenesis inhibiting pyridazinamines
INVENTOR(S): Stokbboekx, Raymond Antoine; Van Der Aa, Marcel Jozef Maria; Willems, Marc; Meerpoel, Lieven; Luyckx, Marcel Gerebernus Maria; Tuman, Robert W.
PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Neth.; Stokbroekx, Raymond Antoine; Van Der Aa, Marcel Jozef Maria; Willems, Marc; Meerpoel, Lieven; Luyckx, Marcel Gerebernus Maria; Tuman, Robert W.
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9726258	A1	19970724	WO 1997-EP201	19970114
W: AL, AM, AU, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KG, KR, LC, LK, LR, LT, LV, MD, MG, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2237273	AA	19970724	CA 1997-2237273	19970114
AU 9714439	A1	19970811	AU 1997-14439	19970114
AU 717744	B2	20000330		
ZA 9700288	A	19980714	ZA 1997-288	19970114
EP 876366	A2	19981111	EP 1997-901059	19970114
EP 876366	B1	20010725		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, LV, FI, RO				
CN 1208415	A	19990217	CN 1997-191705	19970114
CN 1104430	B	20030402		
JP 2000503014	T2	20000314	JP 1997-524656	19970114
IL 124461	A1	20000726	IL 1997-124461	19970114
AT 203534	E	20010815	AT 1997-901059	19970114
ES 2162235	T3	20011216	ES 1997-901059	19970114
PT 876366	T	20020130	PT 1997-97901059	19970114
TW 480256	B	20020321	TW 1997-86100703	19970123
NO 9802037	A	19980915	NO 1998-2037	19980505
US 5985878	A	19991116	US 1998-119075	19980709
GR 3036900	T3	20020131	GR 2001-401770	20011016

PRIORITY APPLN. INFO.: EP 1996-200085 A 19960115
EP 1997-901059 A 19970114
WO 1997-EP201 W 19970114

OTHER SOURCE(S): MARPAT 127:176434
ED Entered STN: 20 Aug 1997
GI



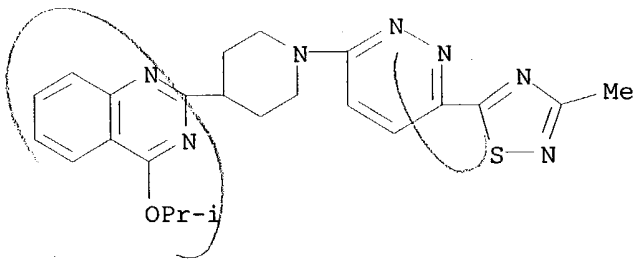
I

AB Title compds. I [R1 = H, alkyl, alkoxy, alkylthio, amino, aryl, cycloalkyl, CH2OH, CH2OCH2Ph; R2, R3 = H; R2R3 = CH:CHCH:CH; NR4R5 = heterocyclic] were prepd. Thus, 3-chloro-6-methylpyridazine was treated with SOCl2 and HN:CHMeNH2.HCl to give the chloropyridazinylthiadiazole which was treated with 1-(3-trifluoromethylphenyl)piperazine to give I [R1 = Me, R2, R3 = H, NR4R5 = 4-(3-trifluoromethylphenyl)piperazino]. This compd. had an in vitro angiogenesis inhibiting IC50 of 0.3 nM.

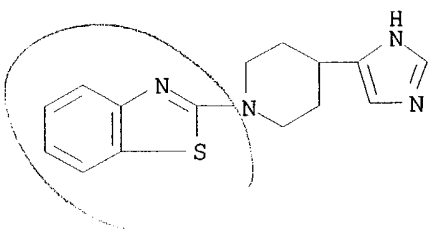
IT **193956-99-9P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of thiadiazolylpyrazinylamines as angiogenesis inhibitors)

RN 193956-99-9 CAPLUS

CN Quinazoline, 4-(1-methylethoxy)-2-[1-[6-(3-methyl-1,2,4-thiadiazol-5-yl)-3-pyridazinyl]-4-piperidinyl]- (9CI) (CA INDEX NAME)



L10 ANSWER 14 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:698528 CAPLUS
DOCUMENT NUMBER: 128:43409
TITLE: In vitro characterization of potency, affinity and selectivity of H3-antagonists: from thioperamide to thioperamide unrelated imidazole derivatives
AUTHOR(S): Barocelli, Elisabetta; Ballabeni, Vigilio; Caretta, Antonio; Bertoni, Simona; Bordi, Fabrizio; Rivara, Silvia; Silva, Claudia; Mor, Marco; Impicciatore, Mariannina
CORPORATE SOURCE: Istituto di Farmacologia e Farmacognosia, Facolta di Farmacia, Universita degli Studi di Parma, Parma, 43100, Italy
SOURCE: Farmaco (1997), 52(6-7), 463-469
CODEN: FRMCE8; ISSN: 0014-827X
PUBLISHER: Societa Chimica Italiana
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 06 Nov 1997
AB This paper summarizes the findings obtained for three different series of original compds. designed as potential H3-antagonists starting from thioperamide structure. The compds. were tested in functional and binding assays to est. their potency, affinity and selectivity for histamine H3 receptors. Among them, many non-thiourea/isothiourea derivs. acted as selective H3 competitive antagonists and, particularly, 4(5)-[2-[4(5)-cyclohexylimidazol-2-ylthio]ethyl] imidazole proved to be the most potent H3 blocker vs. (R)-.alpha.-methylhistamine in elec.-stimulated ileum. This imidazole deriv., devoid of thiourea dependent toxic effects, with high affinity displaced biphasically [3H]-N.alpha.-methylhistamine bound to rat brain H3 sites. Thus, such compd. could be proposed as the prototype mol. for the development of new non-thiourea/isothiourea H3-antagonists and as exptl. tool to explore the intriguing question of H3 receptor heterogeneity.
IT **146365-89-1**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(affinity, potency and selectivity of thioperamide and imidazole derivs. as H3-antagonists)
RN 146365-89-1 CAPLUS
CN Benzothiazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)

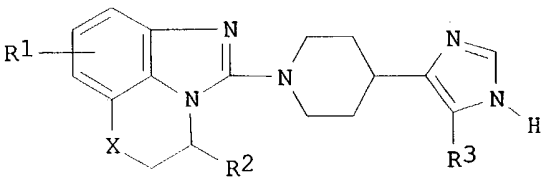


REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 15 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:632188 CAPLUS
DOCUMENT NUMBER: 125:275893
TITLE: Preparation of 1-(benzimidazolyl)piperidine 5-HT4 and/or 5-HT3 receptor antagonists
INVENTOR(S): Even, Luc; Jegham, Samir; Defosse, Gerard; Aletru, Michel
PATENT ASSIGNEE(S): Synthelabo S. A., Fr.
SOURCE: Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 732334	A1	19960918	EP 1996-400452	19960304
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
FR 2731708	A1	19960920	FR 1995-2863	19950313
FR 2731708	B1	19970430		
ZA 9601994	A	19960903	ZA 1996-1994	19960312
CA 2171579	AA	19960914	CA 1996-2171579	19960312
NO 9601000	A	19960916	NO 1996-1000	19960312
AU 9648008	A1	19960926	AU 1996-48008	19960312
JP 08269058	A2	19961015	JP 1996-54560	19960312
CN 1140174	A	19970115	CN 1996-107315	19960312

PRIORITY APPLN. INFO.: FR 1995-2863 19950313
OTHER SOURCE(S): MARPAT 125:275893
ED Entered STN: 26 Oct 1996
GI



I

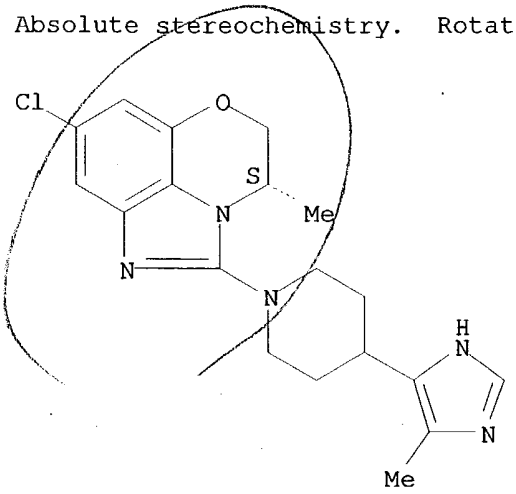
AB The title compds. (I; R1 = Cl, F, Me, MeO, NH2; R2, R3 = H, Me; X = O, CH2) (e.g., R1 = 8-Cl, R2 = R3 = H, X = O, hydrochloride salt; m.p. 275.degree.), useful as 5-HT4 and/or 5-HT3 receptor antagonists (e.g., I demonstrate a IC50 of 0.02-2 .mu.M against [3H]-GR 113808), are prepd.

IT **182264-50-2P 182264-52-4P 182264-54-6P**
182264-56-8P 182264-57-9P 182264-59-1P
182264-61-5P 182264-63-7P 182264-65-9P
182264-67-1P 182264-69-3P 182264-70-6P
182264-73-9P 182264-75-1P 182264-77-3P
182264-80-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 1-(benzimidazolyl)piperidine 5-HT4 and/or 5-HT3 receptor antagonists)

RN 182264-50-2 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 8-chloro-4,5-dihydro-4-methyl-2-[4-(5-

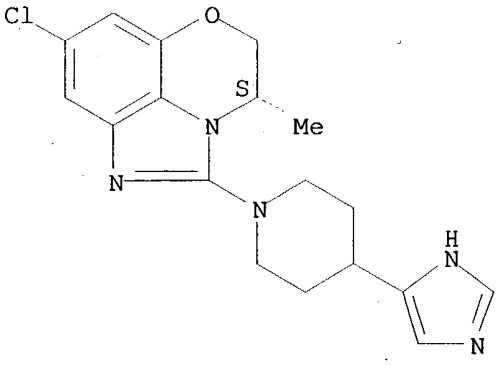
methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

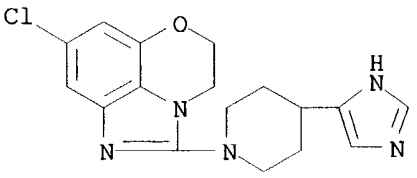


RN 182264-52-4 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 8-chloro-4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



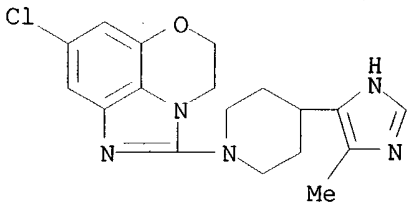
RN 182264-54-6 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 8-chloro-4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

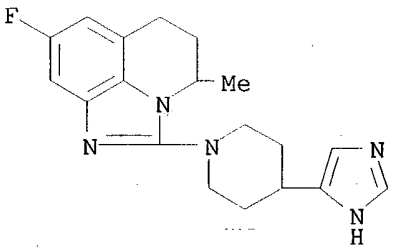
RN 182264-56-8 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 8-chloro-4,5-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, monohydrochloride, (S)- (9CI) (CA INDEX

NAME)

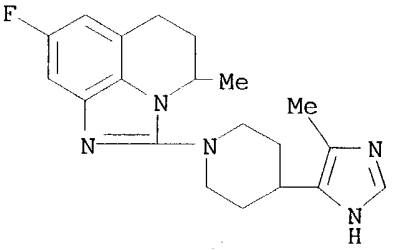


● HCl

RN 182264-57-9 CAPLUS
CN 4H-Imidazo[4,5,1-ij]quinoline, 8-fluoro-5,6-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl-, (S)- (9CI) (CA INDEX NAME)

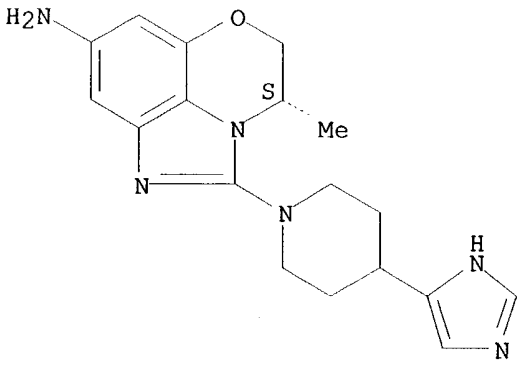


RN 182264-59-1 CAPLUS
CN 4H-Imidazo[4,5,1-ij]quinoline, 8-fluoro-5,6-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (S)- (9CI) (CA INDEX NAME)



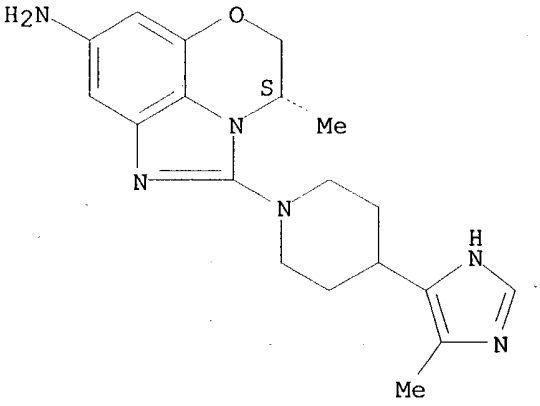
RN 182264-61-5 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazin-8-amine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

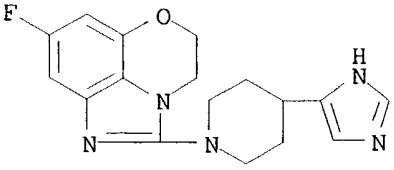


RN 182264-63-7 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazin-8-amine, 4,5-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (S)- (9CI) (CA INDEX NAME)

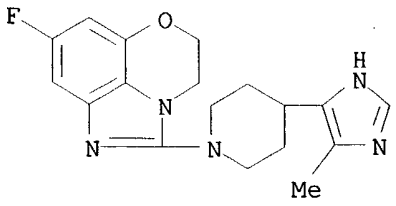
Absolute stereochemistry. Rotation (-).



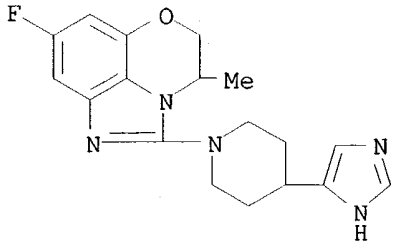
RN 182264-65-9 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 8-fluoro-4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



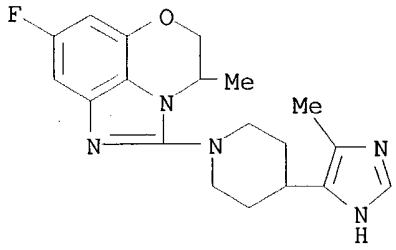
RN 182264-67-1 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 8-fluoro-4,5-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 182264-69-3 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 8-fluoro-4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl- (9CI) (CA INDEX NAME)



RN 182264-70-6 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 8-fluoro-4,5-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)

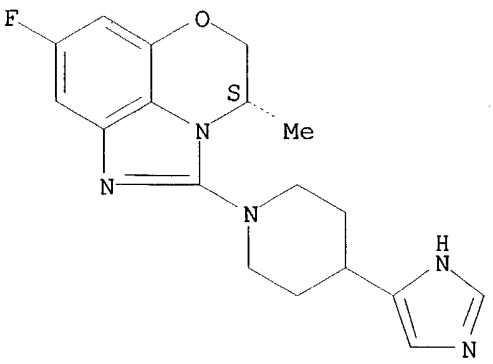


RN 182264-73-9 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 8-fluoro-4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl-, (4S)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 182264-72-8
CMF C18 H20 F N5 O

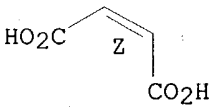
Absolute stereochemistry. Rotation (+).



CM 2

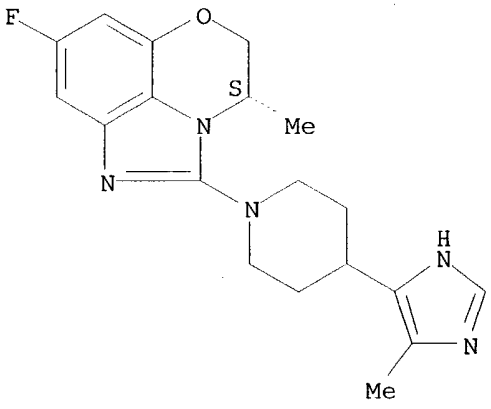
CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.



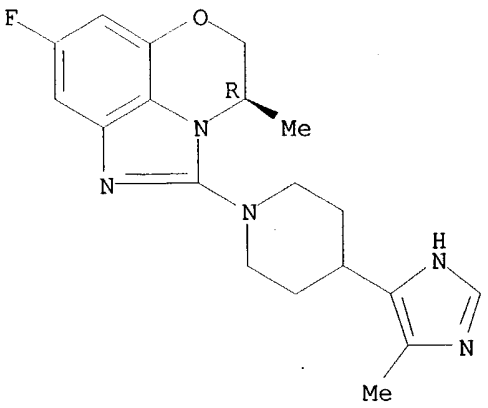
RN 182264-75-1 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 8-fluoro-4,5-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 182264-77-3 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 8-fluoro-4,5-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

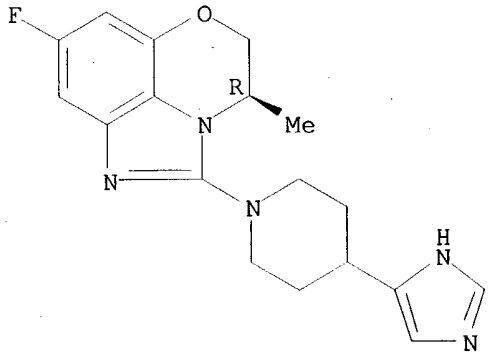


RN 182264-80-8 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 8-fluoro-4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl-, (4R)-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 182264-79-5
CMF C18 H20 F N5 O

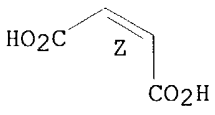
Absolute stereochemistry. Rotation (-).



CM 2

CRN 110-16-7
CMF C4 H4 O4

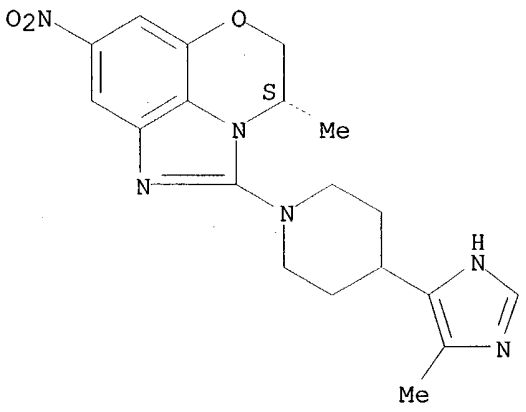
Double bond geometry as shown.



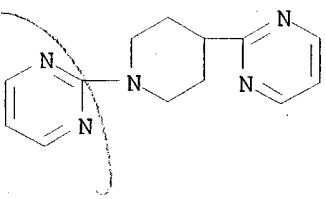
IT **182265-01-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of 1-(benzimidazolyl)piperidine 5-HT4 and/or 5-HT3 receptor

antagonists)
RN 182265-01-6 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-8-nitro-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



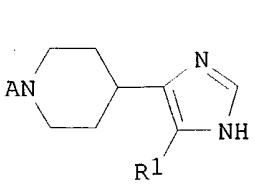
L10 ANSWER 16 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:407459 CAPLUS
DOCUMENT NUMBER: 125:96333
TITLE: Assay and purity control of new serotonergic anxiolytics by HPTLC and scanning densitometry
AUTHOR(S): Farina, Anna; Doldo, Antonio; Cotichini, Viviana; Rajevic, Maya
CORPORATE SOURCE: Lab. Chimica Farmaco, Ist. Sup. Sanita, Rome, 00161, Italy
SOURCE: Journal of Planar Chromatography--Modern TLC (1996), 9(3), 185-188
CODEN: JPCTE5; ISSN: 0933-4173
PUBLISHER: Research Institute for Medicinal Plants
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 13 Jul 1996
AB A high-performance TLC (HPTLC) method with densitometric UV detection was used for the detn. and purity control of serotonergic anxiolytics. With silica gel as adsorbent and 3 different mobile phases, all the potential impurities were well sepd. from the main components and from each other. Detection limits of a few nanograms were obtained at a signal-to-noise ratio 3:1. The relative std. deviation values for the main components and related impurities were between 2.2 and 3.4%. The results obtained were compared with those obtained by a previously established HPLC method.
IT **178948-99-7**
RL: ANT (Analyte); ANST (Analytical study)
(purity control of serotonergic anxiolytics by HPTLC and densitometry)
RN 178948-99-7 CAPLUS
CN Pyrimidine, 2,2'-(1,4-piperidinediyl)bis- (9CI) (CA INDEX NAME)



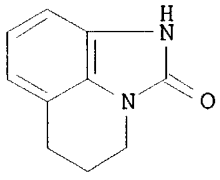
L10 ANSWER 17 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:557370 CAPLUS
DOCUMENT NUMBER: 122:290862
TITLE: Derivatives of imidazol-4-ylpiperidine with 5-HT3 and 5-HT4 activity, their preparation, and their use in therapy.
INVENTOR(S): Jegham, Samir; Defosse, Gerard; Purcell, Thomas Andrew; Even, Luc
PATENT ASSIGNEE(S): Synthelabo S. A., Fr.
SOURCE: Eur. Pat. Appl., 17 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 646583	A1	19950405	EP 1994-402114	19940923
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
FR 2710915	A1	19950414	FR 1993-11771	19931004
FR 2710915	B1	19951124		
CA 2133491	AA	19950405	CA 1994-2133491	19941003
NO 9403682	A	19950405	NO 1994-3682	19941003
FI 9404600	A	19950405	FI 1994-4600	19941003
AU 9474329	A1	19950413	AU 1994-74329	19941003
JP 07179466	A2	19950718	JP 1994-238914	19941003
ZA 9407710	A	19950810	ZA 1994-7710	19941003
CN 1109471	A	19951004	CN 1994-117012	19941003
HU 71120	A2	19951128	HU 1994-2832	19941003
US 5589476	A	19961231	US 1994-317661	19941003

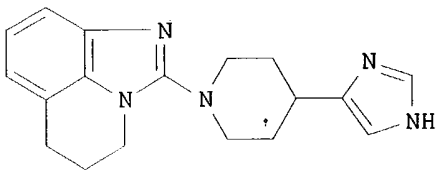
PRIORITY APPLN. INFO.: FR 1993-11771 19931004
OTHER SOURCE(S): CASREACT 122:290862; MARPAT 122:290862
ED Entered STN: 18 May 1995
GI



I



II



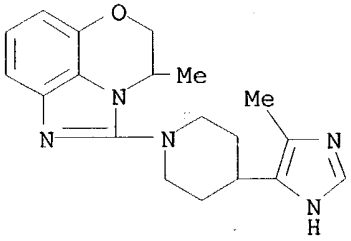
III

AB Title compds. I [R1 = H, straight or branched C1-6 alkyl; A = 9 specific tricyclic heterocyclic radicals with an optional phenylmethyl substituent] and their pharmaceutical salts are claimed. The compds. are ligands of 5-HT3 and 5-HT4 receptors, and have a variety of potential uses involving CNS and cardiovascular activities. For example, redn. of 8-quinolinamine with Na in EtOH gave the 1,2,3,4-tetrahydro deriv., which was cyclized

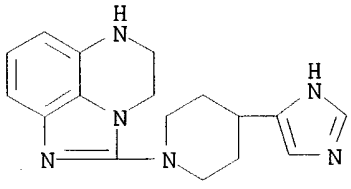
with urea to give dihydroimidazoquinolinone II. Treatment of II with POCl3 converted the carbonyl to the corresponding unsatd. chloride, which reacted with 4-(1H-imidazol-4-yl)piperidine in isoamyl alc. at 120.degree. to give title compd. III. The IC50 values of more active I for inhibition of [3H]-quipazine binding to rat cerebral 5-HT3 receptors were 0.01-10 nM. I also had IC50 of 0.02-2 .mu.M for inhibition of specific binding of [3H]-GR118808 to guinea pig 5-HT4 receptors.

IT **163120-16-9P 163120-26-1P 163120-32-9P**
163120-34-1P 163120-36-3P 163120-38-5P
163120-40-9P 163120-42-1P 163120-44-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of imidazolylpiperidine derivs. as 5-HT3 and 5-HT4 receptor ligands)

RN 163120-16-9 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)

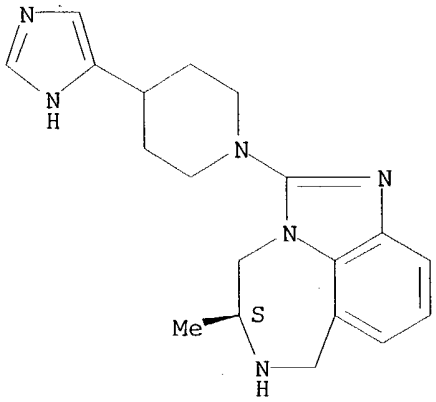


RN 163120-26-1 CAPLUS
CN 4H-Imidazo[1,5,4-de]quinoxaline, 5,6-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



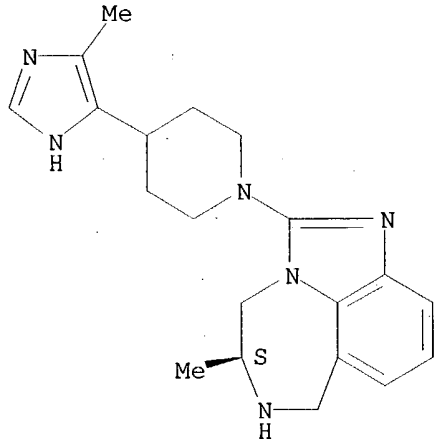
RN 163120-32-9 CAPLUS
CN Imidazo[4,5,1-jk][1,4]benzodiazepine, 4,5,6,7-tetrahydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-5-methyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



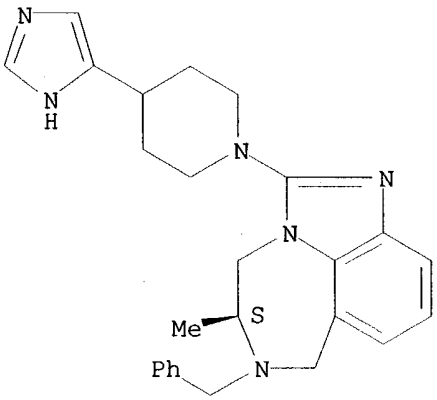
RN 163120-34-1 CAPLUS
CN Imidazo[4,5,1-jk][1,4]benzodiazepine, 4,5,6,7-tetrahydro-5-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



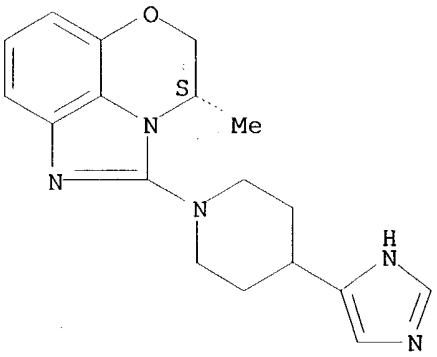
RN 163120-36-3 CAPLUS
CN Imidazo[4,5,1-jk][1,4]benzodiazepine, 4,5,6,7-tetrahydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-5-methyl-6-(phenylmethyl)-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



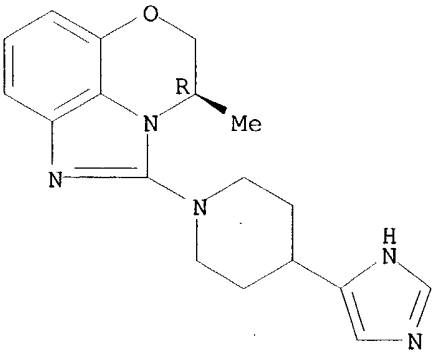
RN 163120-38-5 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



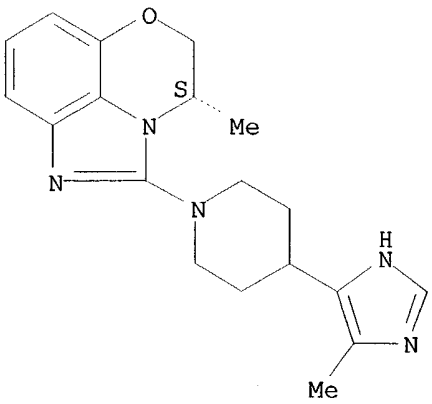
RN 163120-40-9 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



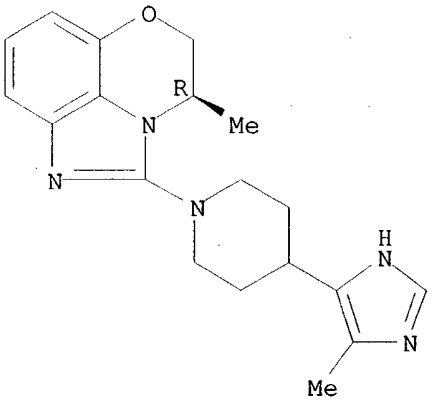
RN 163120-42-1 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

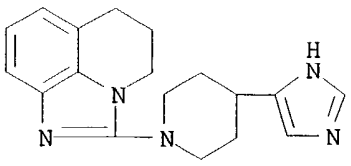


RN 163120-44-3 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (R)- (9CI) (CA INDEX NAME)

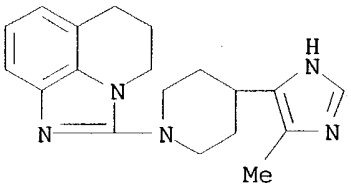
Absolute stereochemistry.



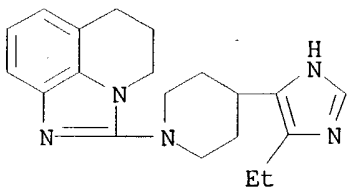
IT **163120-06-7P 163120-07-8P 163120-08-9P**
163120-09-0P 163120-11-4P 163120-13-6P
163120-15-8P 163120-17-0P 163120-19-2P
163120-21-6P 163120-22-7P 163120-23-8P
163120-25-0P 163120-27-2P 163120-29-4P
163120-30-7P 163120-31-8P 163120-33-0P
163120-35-2P 163120-37-4P 163120-39-6P
163120-41-0P 163120-43-2P 163120-45-4P
163120-46-5P 163120-47-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of imidazolylpiperidine derivs. as 5-HT3 and 5-HT4 receptor ligands)
RN 163120-06-7 CAPLUS
CN 4H-Imidazo[4,5,1-ij]quinoline, 5,6-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



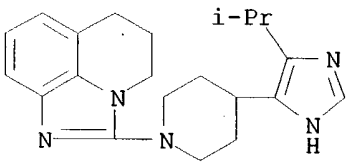
RN 163120-07-8 CAPLUS
CN 4H-Imidazo[4,5,1-ij]quinoline, 5,6-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 163120-08-9 CAPLUS
CN 4H-Imidazo[4,5,1-ij]quinoline, 2-[4-(5-ethyl-1H-imidazol-4-yl)-1-piperidinyl]-5,6-dihydro- (9CI) (CA INDEX NAME)



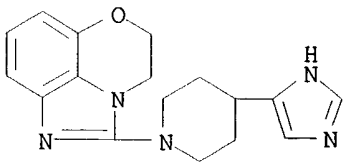
RN 163120-09-0 CAPLUS
CN 4H-Imidazo[4,5,1-ij]quinoline, 5,6-dihydro-2-[4-[5-(1-methylethyl)-1H-imidazol-4-yl]-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 163120-11-4 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

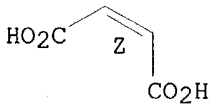
CRN 163120-10-3
CMF C17 H19 N5 O



CM 2

CRN 110-16-7
CMF C4 H4 O4

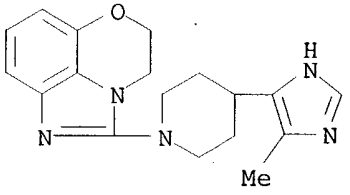
Double bond geometry as shown.



RN 163120-13-6 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

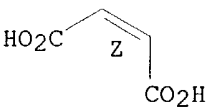
CRN 163120-12-5
CMF C18 H21 N5 O



CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.

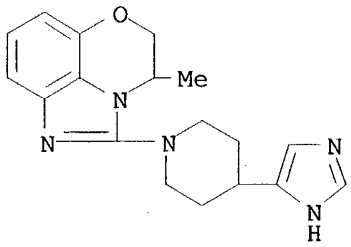


RN 163120-15-8 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 163120-14-7

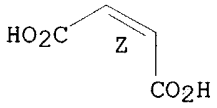
CMF C18 H21 N5 O



CM 2

CRN 110-16-7
CMF C4 H4 O4

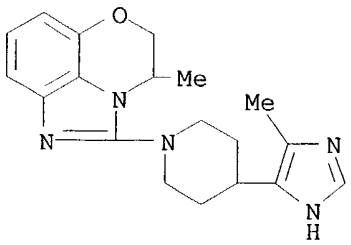
Double bond geometry as shown.



RN 163120-17-0 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

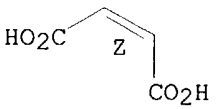
CRN 163120-16-9
CMF C19 H23 N5 O



CM 2

CRN 110-16-7
CMF C4 H4 O4

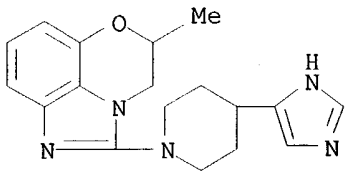
Double bond geometry as shown.



RN 163120-19-2 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-5-methyl-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

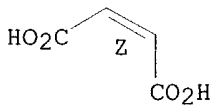
CRN 163120-18-1
CMF C18 H21 N5 O



CM 2

CRN 110-16-7
CMF C4 H4 O4

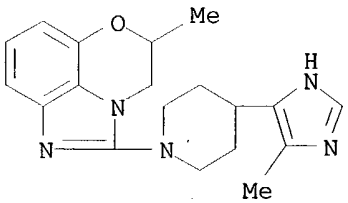
Double bond geometry as shown.



RN 163120-21-6 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-5-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, ethanedioate (1:2) (9CI) (CA INDEX NAME)

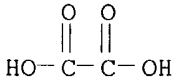
CM 1

CRN 163120-20-5
CMF C19 H23 N5 O



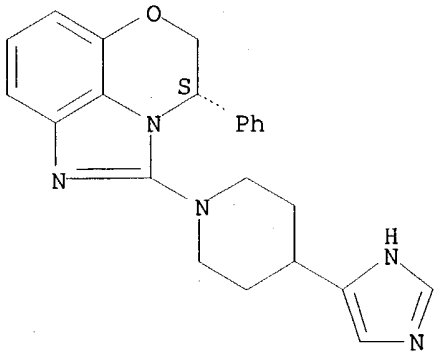
CM 2

CRN 144-62-7
CMF C2 H2 O4



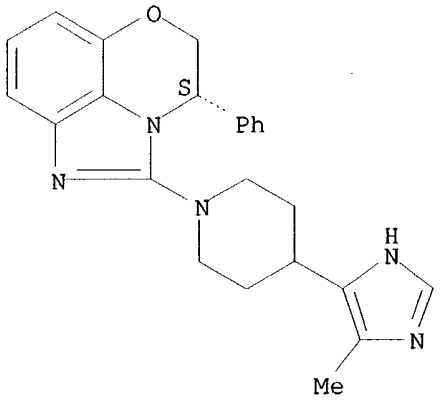
RN 163120-22-7 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-phenyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 163120-23-8 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-4-phenyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

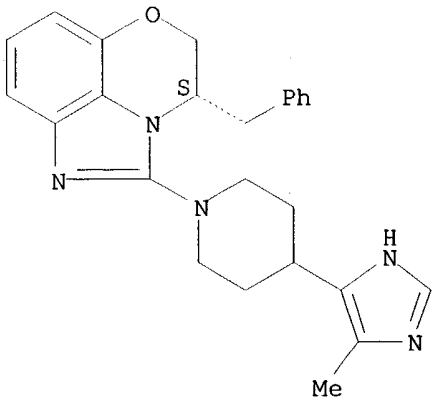


RN 163120-25-0 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-4-(phenylmethyl)-, (4S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 163120-24-9
CMF C25 H27 N5 O

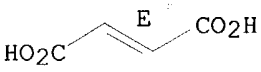
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

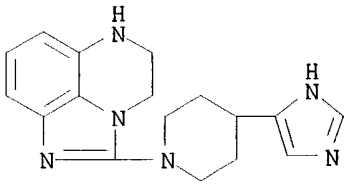
Double bond geometry as shown.



RN 163120-27-2 CAPLUS
CN 4H-Imidazo[1,5,4-de]quinoxaline, 5,6-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-, ethanedioate (2:3) (9CI) (CA INDEX NAME)

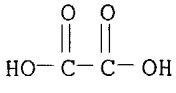
CM 1

CRN 163120-26-1
CMF C17 H20 N6



CM 2

CRN 144-62-7
CMF C2 H2 O4

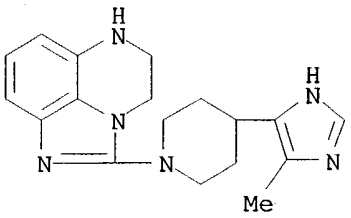


RN 163120-29-4 CAPLUS
CN 4H-Imidazo[1,5,4-de]quinoxaline, 5,6-dihydro-2-[4-(5-methyl-1H-imidazol-4-

yl)-1-piperidinyl]-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

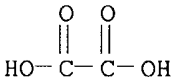
CM 1

CRN 163120-28-3
CMF C18 H22 N6

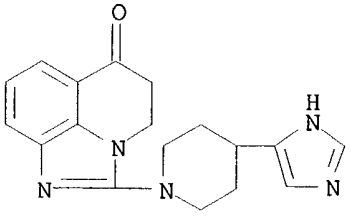


CM 2

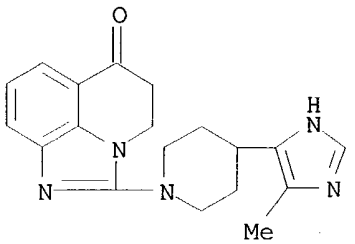
CRN 144-62-7
CMF C2 H2 O4



RN 163120-30-7 CAPLUS
CN 6H-Imidazo[4,5,1-ij]quinolin-6-one, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 163120-31-8 CAPLUS
CN 6H-Imidazo[4,5,1-ij]quinolin-6-one, 4,5-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



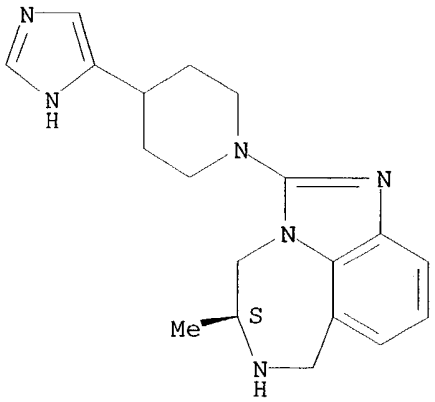
RN 163120-33-0 CAPLUS
CN Imidazo[4,5,1-jk][1,4]benzodiazepine, 4,5,6,7-tetrahydro-2-[4-(1H-imidazol-

4-yl)-1-piperidinyl]-5-methyl-, (5S)-, (2Z)-2-butenedioate (1:3) (9CI) (CA INDEX NAME)

CM 1

CRN 163120-32-9
CMF C19 H24 N6

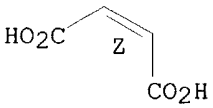
Absolute stereochemistry.



CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.

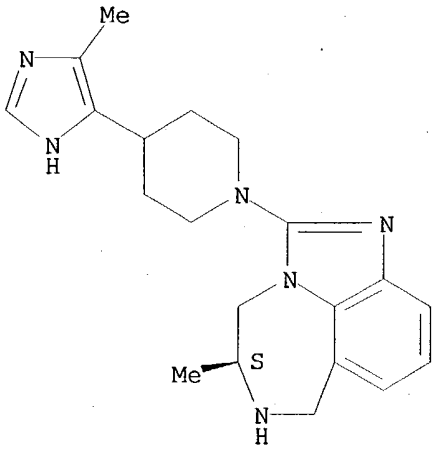


RN 163120-35-2 CAPLUS
CN Imidazo[4,5,1-jk][1,4]benzodiazepine, 4,5,6,7-tetrahydro-5-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (5S)-, (2E)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 163120-34-1
CMF C20 H26 N6

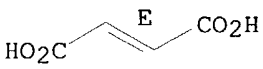
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.

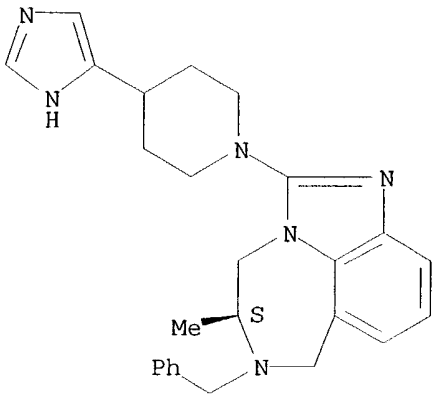


RN 163120-37-4 CAPLUS
CN Imidazo[4,5,1-jk][1,4]benzodiazepine, 4,5,6,7-tetrahydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-5-methyl-6-(phenylmethyl)-, (5S)-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 163120-36-3
CMF C26 H30 N6

Absolute stereochemistry.

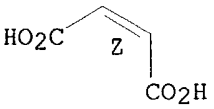


CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.

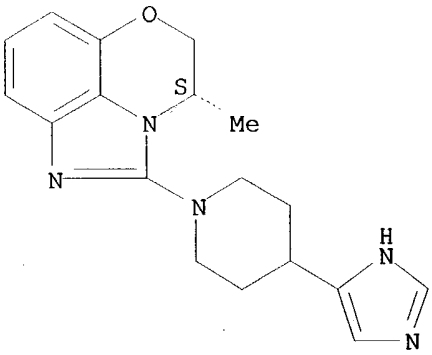


RN 163120-39-6 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl-, (4S)-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 163120-38-5
CMF C18 H21 N5 O

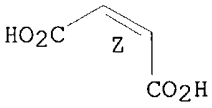
Absolute stereochemistry.



CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.

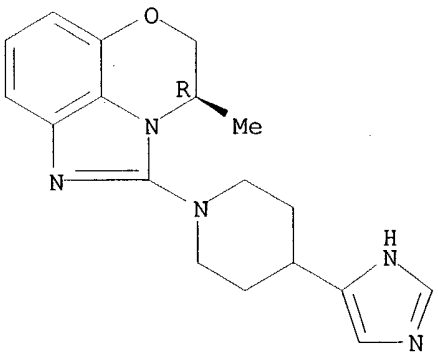


RN 163120-41-0 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl-, (4R)-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 163120-40-9
CMF C18 H21 N5 O

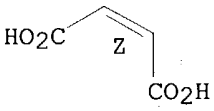
Absolute stereochemistry.



CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.

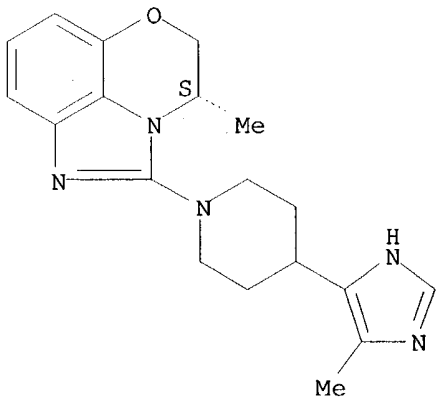


RN 163120-43-2 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (4S)-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 163120-42-1
CMF C19 H23 N5 O

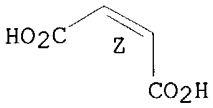
Absolute stereochemistry.



CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.

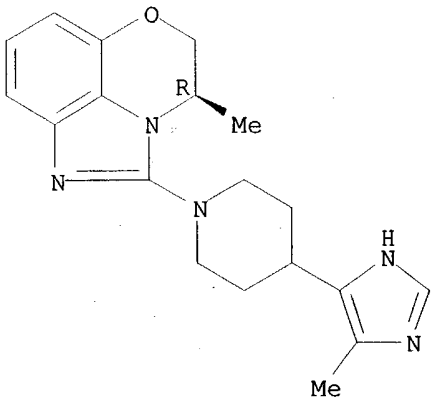


RN 163120-45-4 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (4R)-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 163120-44-3
CMF C19 H23 N5 O

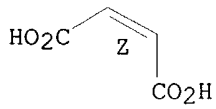
Absolute stereochemistry.



CM 2

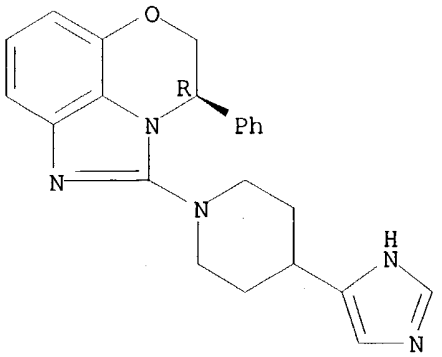
CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.



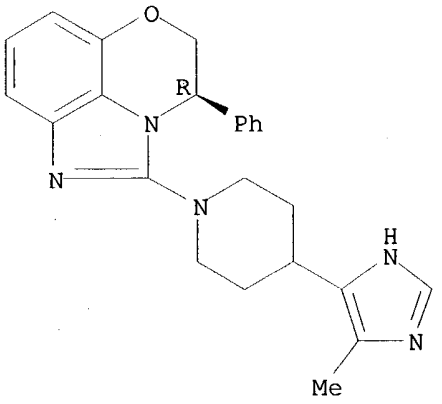
RN 163120-46-5 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-5-phenyl-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 163120-47-6 CAPLUS
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-4-phenyl-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



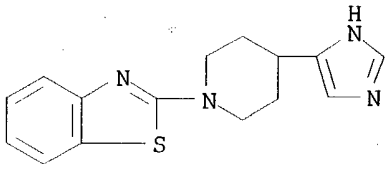
L10 ANSWER 18 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:989625 CAPLUS
DOCUMENT NUMBER: 124:175944
TITLE: Heteroarylaminoethyl and heteroarylthioethylimidazoles . Synthesis and H3-receptor affinity
AUTHOR(S): Plazzi, P. V.; Bordi, F.; Mor, M.; Silva, C.; Morini, G.; Caretta, A.; Barocelli, E.; Vitali, T.
CORPORATE SOURCE: Dip. Farmaceutico, Univ. Studi Parma, Parma, 43100, Italy
SOURCE: European Journal of Medicinal Chemistry (1995), 30(11), 881-9
CODEN: EJMCA5; ISSN: 0223-5234
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 19 Dec 1995
AB The synthesis of new H3-receptor antagonists, 4-(2-heteroarylaminoethyl)- and 4-(2-heteroarylthioethyl)imidazoles and their H3-receptor affinity obtained from competitive binding curves vs [3H]-N.alpha.-methylhistamine ([3H]NAMHA) on rat brain cortex membranes are described. These compds. are derived from structural modulations of thioperamide and were synthesized in order to study binding interactions with H3-receptors and find alternative lead compds. with H3-receptor antagonist activity. The

new compds. differ from thioperamide by replacing the N-cyclohexylcarbothioamide moiety of thioperamide by a benzothiazole and the piperidine ring by more flexible aminoethyl and thioethyl chains in order to lower the excessive rigidity and to test the importance of the tertiary piperidine nitrogen, and replacing the benzothiazole moiety by other heterocyclic nuclei endowed with different lipophilic, steric and hydrogen-bonding features. Some of the compds. tested showed good affinity for central H3-receptors (pKi range: 5.89-7.96) and can be considered as lead compds. for further optimization studies. The most lipophilic compds. showed higher affinities among benzo-condensed compds., while imidazolylthioethylimidazoles were more potent in displacing [3H]NAMHA than thiazolylthioethyl- and thiazolylaminoethylimidazoles which suggests an interaction between the annular NH of the imidazolylthioethyl moiety and the binding site.

IT **146365-89-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and H3-receptor affinity of heteroarylamino- and heteroarylthioethylimidazoles)

RN 146365-89-1 CAPLUS

CN Benzothiazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



L10 ANSWER 19 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:495636 CAPLUS
DOCUMENT NUMBER: 125:211804
TITLE: Structural analogs of thioperamide: pharmacological evaluation of new benzothiazole derivatives at peripheral histamine receptor subtypes in guinea pigs
AUTHOR(S): Barocelli, E.; Ballabeni, V.; Chiavarini, M.; Caretta, A.; More, M.; Silva, C.; Impicciatore, M.
CORPORATE SOURCE: Inst. Pharmacology, Pharmacognosy, Dep. Pharmaceutical Chem., Coll. Pharm., Univ. Parma, Parma, Italy
SOURCE: Pharmaceutical Sciences (1995), 1(4), 177-180
CODEN: PHSCFB; ISSN: 1356-6881
PUBLISHER: Royal Pharmaceutical Society of Great Britain
DOCUMENT TYPE: Journal
LANGUAGE: English

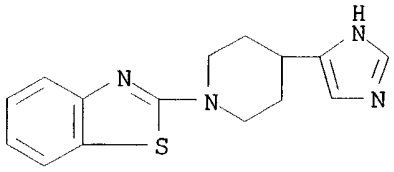
ED Entered STN: 20 Aug 1996

AB New thioperamide analogs, derived by the replacement of the cyclohexylcarbothioamide portion with the benzothiazole nucleus, were tested in guinea-pig isolated prepns. to assess their H1-, H2- and H3-blocking actions. Various substituents were inserted in position 6 of the benzothiazole ring to investigate whether changes of physicochem. properties of the heteroarom. structure could affect drug-receptor interaction. A selective H3 antagonism was exhibited by the unsubstituted benzothiazole deriv. which showed a substantial fall in potency (pA2=7.07) with respect to thioperamide (pA2=9.04). The insertion of small substituents (-NO2, -Br, -CH3) caused only marginal variations in the H3-antagonistic activity, while the introduction of larger groups (-C4H9, -OC4H9, -COC6H5, -COOC2H5) markedly hampered drug-receptor interaction.

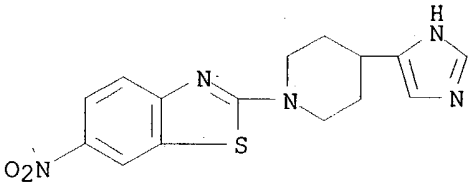
The authors conclude that the steric hindrance could account for the low H3-antagonistic activity of the new thioperamide benzothiazole derivs.

IT **146365-89-1 156246-07-0 156246-08-1**
156246-09-2 156246-10-5 156246-11-6
156246-12-7 156246-13-8
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmacol. evaluation of new benzothiazole thioperamide analogs as antagonists at peripheral histamine receptor subtypes in guinea pigs)

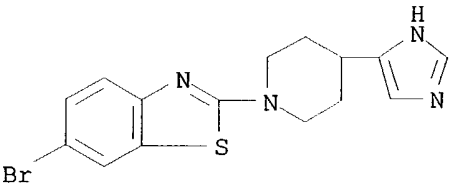
RN 146365-89-1 CAPLUS
CN Benzothiazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



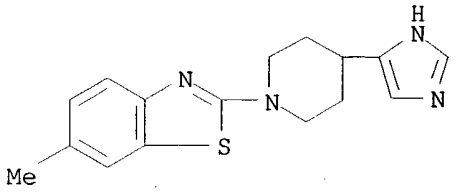
RN 156246-07-0 CAPLUS
CN Benzothiazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-6-nitro- (9CI) (CA INDEX NAME)



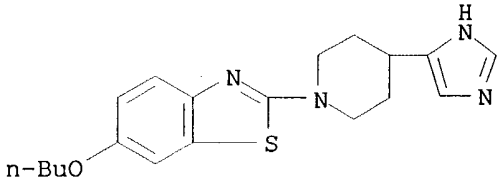
RN 156246-08-1 CAPLUS
CN Benzothiazole, 6-bromo-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



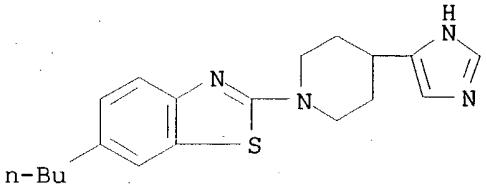
RN 156246-09-2 CAPLUS
CN Benzothiazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-6-methyl- (9CI) (CA INDEX NAME)



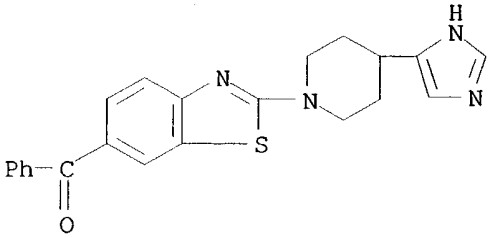
RN 156246-10-5 CAPLUS
CN Benzothiazole, 6-butoxy-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



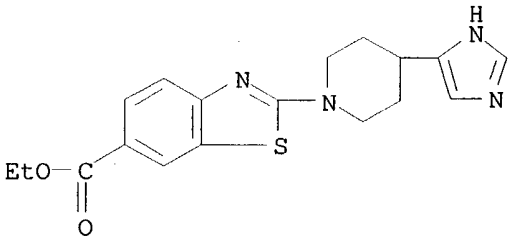
RN 156246-11-6 CAPLUS
CN Benzothiazole, 6-butyl-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 156246-12-7 CAPLUS
CN Methanone, [2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-6-benzothiazolyl]phenyl- (9CI) (CA INDEX NAME)



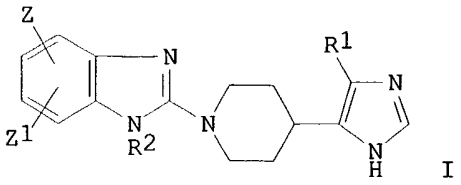
RN 156246-13-8 CAPLUS
CN 6-Benzothiazolecarboxylic acid, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-, ethyl ester (9CI) (CA INDEX NAME)



L10 ANSWER 20 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1994:435609 CAPLUS
DOCUMENT NUMBER: 121:35609
TITLE: Preparation of 2-[4-(4-imidazolyl)piperidino]benzimidazoles as serotoninergic receptor antagonists
INVENTOR(S): Jegham, Samir; Defosse, Gerard; Purcell, Thomas
PATENT ASSIGNEE(S): Synthelabo S. A., Fr.
SOURCE: Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 591026	A1	19940406	EP 1993-402280	19930920
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
FR 2696176	A1	19940401	FR 1992-11550	19920928
FR 2696176	B1	19941110		
CA 2107060	AA	19940329	CA 1993-2107060	19930927
FI 9304220	A	19940329	FI 1993-4220	19930927
NO 9303434	A	19940329	NO 1993-3434	19930927
AU 9348605	A1	19940414	AU 1993-48605	19930927
AU 659033	B2	19950504		
ZA 9307155	A	19940523	ZA 1993-7155	19930927
CN 1087340	A	19940601	CN 1993-118081	19930927
HU 65396	A2	19940628	HU 1993-2726	19930927
JP 06192254	A2	19940712	JP 1993-239568	19930927
US 5418241	A	19950523	US 1993-127058	19930927
PL 172852	B1	19971231	PL 1993-300514	19930927

PRIORITY APPLN. INFO.: FR 1992-11550 19920928
OTHER SOURCE(S): MARPAT 121:35609
ED Entered STN: 23 Jul 1994
GI



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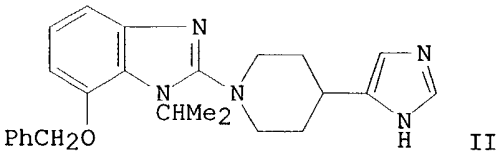


II

AB Title compds. (I; R1,R2 = H, alkyl; Z,Z1 = H, Cl, OH, NH2, alkyl, alkoxy, etc.) were prepd. Thus, 2-chloro-1-(1-methylethyl)-7-phenylmethoxy-1H-benzimidazole (prepn. given) was condensed with 4-(1H-imidazol-4-yl)piperidine to give title compd. II. I gave .gtoreq.50% inhibition of serotonin-induced bradycardia at 10.mu.g/kg i.v. in rats.

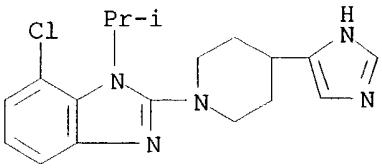
IT **155596-41-1P 155596-42-2P 155596-43-3P**
155596-45-5P 155596-47-7P 155596-49-9P
155596-50-2P 155596-51-3P 155596-53-5P
155596-54-6P 155596-55-7P 155596-57-9P
155596-59-1P 155596-60-4P 155596-61-5P
155596-62-6P 155596-64-8P 155596-66-0P
155596-67-1P 155596-68-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as serotoninergic receptor antagonist)

RN 155596-41-1 CAPLUS

CN 1H-Benzimidazole, 7-chloro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

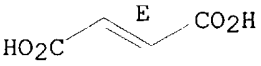
CRN 155596-40-0
CMF C18 H22 Cl N5



CM 2

CRN 110-17-8
CMF C4 H4 O4

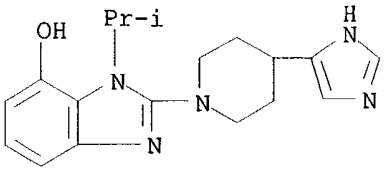
Double bond geometry as shown.



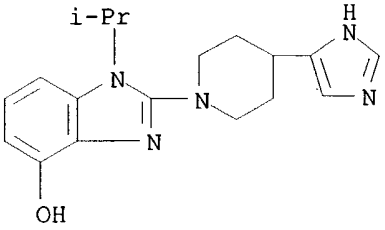
RN 155596-42-2 CAPLUS

CN 1H-Benzimidazol-7-ol, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-

methylethyl)- (9CI) (CA INDEX NAME)



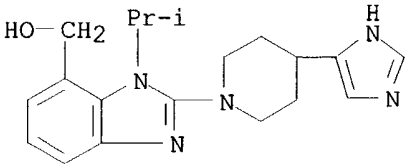
RN 155596-43-3 CAPLUS
CN 1H-Benzimidazol-4-ol, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 155596-45-5 CAPLUS
CN 1H-Benzimidazole-7-methanol, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)-, (2E)-2-butenedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

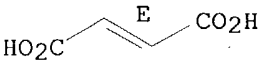
CRN 155596-44-4
CMF C19 H25 N5 O



CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.

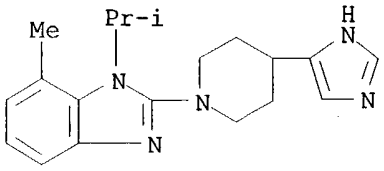


RN 155596-47-7 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-7-methyl-1-(1-methylethyl)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 155596-46-6

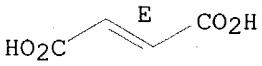
CMF C19 H25 N5



CM 2

CRN 110-17-8
CMF C4 H4 O4

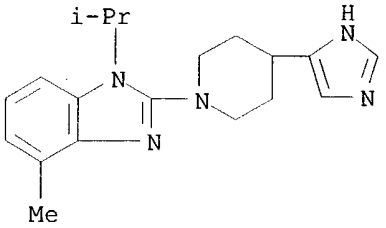
Double bond geometry as shown.



RN 155596-49-9 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl-1-(1-methylethyl)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

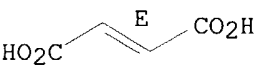
CRN 155596-48-8
CMF C19 H25 N5



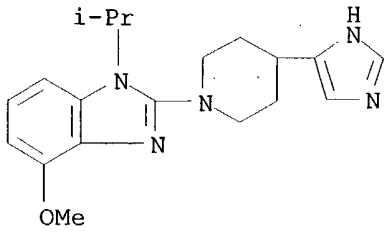
CM 2

CRN 110-17-8
CMF C4 H4 O4

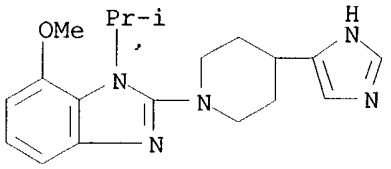
Double bond geometry as shown.



RN 155596-50-2 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methoxy-1-(1-methylethyl)- (9CI) (CA INDEX NAME)



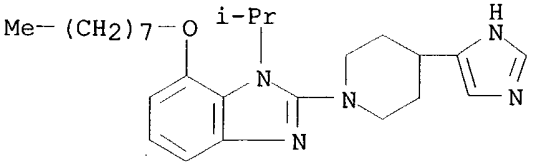
RN 155596-51-3 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-7-methoxy-1-(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 155596-53-5 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)-7-(octyloxy)-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

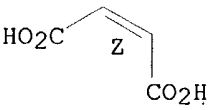
CRN 155596-52-4
CMF C26 H39 N5 O



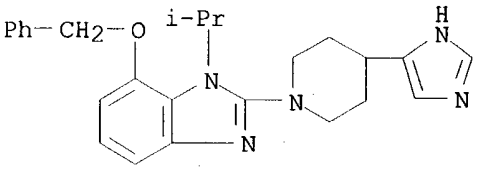
CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.



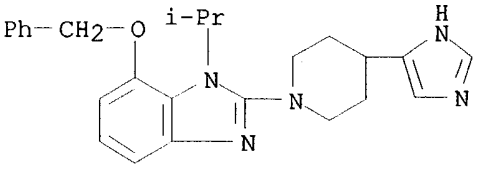
RN 155596-54-6 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)-7-(phenylmethoxy)- (9CI) (CA INDEX NAME)



RN 155596-55-7 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)-7-(phenylmethoxy)-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

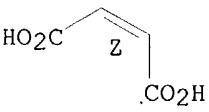
CRN 155596-54-6
CMF C25 H29 N5 O



CM 2

CRN 110-16-7
CMF C4 H4 O4

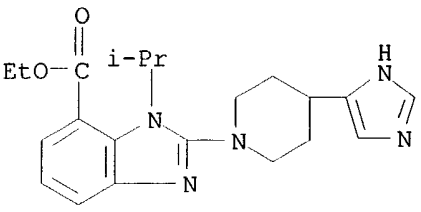
Double bond geometry as shown.



RN 155596-57-9 CAPLUS
CN 1H-Benzimidazole-7-carboxylic acid, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)-, ethyl ester, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

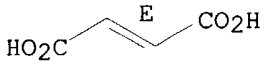
CRN 155596-56-8
CMF C21 H27 N5 O2



CM 2

CRN 110-17-8
CMF C4 H4 O4

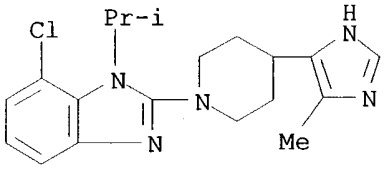
Double bond geometry as shown.



RN 155596-59-1 CAPLUS
CN 1H-Benzimidazole, 7-chloro-1-(1-methylethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

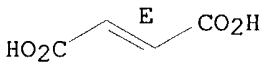
CRN 155596-58-0
CMF C19 H24 Cl N5



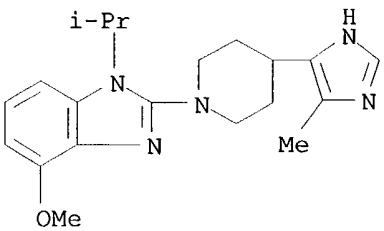
CM 2

CRN 110-17-8
CMF C4 H4 O4

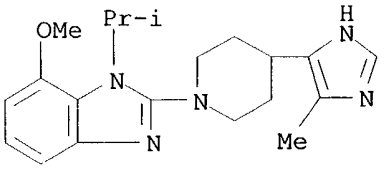
Double bond geometry as shown.



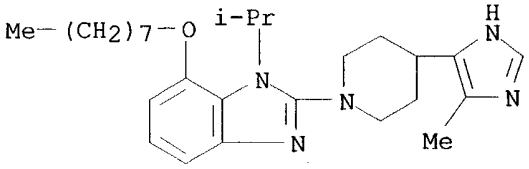
RN 155596-60-4 CAPLUS
CN 1H-Benzimidazole, 4-methoxy-1-(1-methylethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 155596-61-5 CAPLUS
CN 1H-Benzimidazole, 7-methoxy-1-(1-methylethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



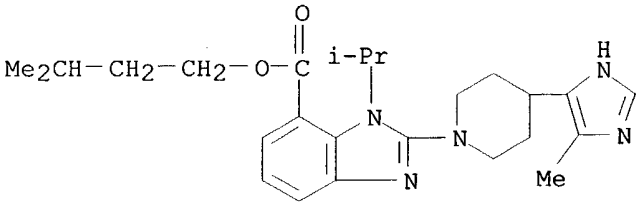
RN 155596-62-6 CAPLUS
CN 1H-Benzimidazole, 1-(1-methylethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-7-(octyloxy)- (9CI) (CA INDEX NAME)



RN 155596-64-8 CAPLUS
CN 1H-Benzimidazole-7-carboxylic acid, 1-(1-methylethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, 3-methylbutyl ester, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 155596-63-7
CMF C25 H35 N5 O2



CM 2

CRN 110-17-8
CMF C4 H4 O4

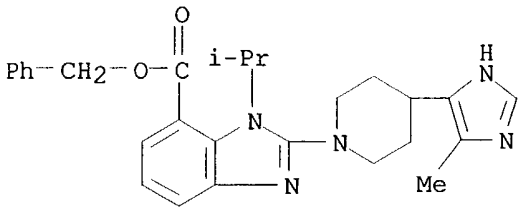
Double bond geometry as shown.

RN 155596-66-0 CAPLUS
CN 1H-Benzimidazole-7-carboxylic acid, 1-(1-methylethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, phenylmethyl ester, (2E)-2-butenedioate (2:3) (9CI) (CA INDEX NAME)

CM 1

CRN 155596-65-9

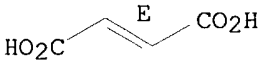
CMF C27 H31 N5 O2



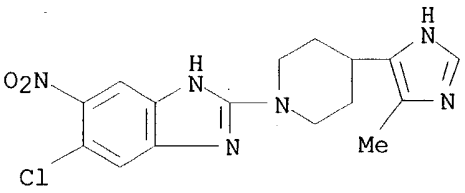
CM 2

CRN 110-17-8
CMF C4 H4 O4

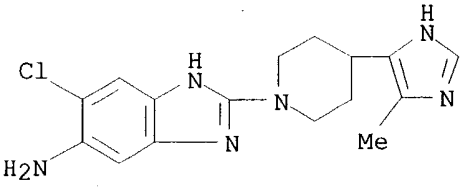
Double bond geometry as shown.



RN 155596-67-1 CAPLUS
CN 1H-Benzimidazole, 5-chloro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-6-nitro- (9CI) (CA INDEX NAME)



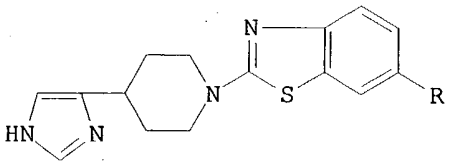
RN 155596-68-2 CAPLUS
CN 1H-Benzimidazol-5-amine, 6-chloro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

L10 ANSWER 21 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1994:483181 CAPLUS
DOCUMENT NUMBER: 121:83181
TITLE: QSAR study on H3-receptor affinity of benzothiazole derivatives of thioperamide

AUTHOR(S): Bordi, Fabrizio; Mor, Marco; Morini, Giovanni; Plazzi, Pier Vincenzo; Silva, Claudia; Vitali, Tullo; Caretta, Antonio
CORPORATE SOURCE: Fac. Farm., Univ. Parma, Parma, 43100, Italy
SOURCE: Farmaco (1994), 49(3), 153-66
CODEN: FRMCE8; ISSN: 0014-827X
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 20 Aug 1994
GI

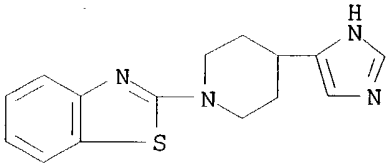


I

AB Starting from the structure of thioperamide, a known H3-antagonist, a new series of compds. I (R = H, NO2, Br, etc.) with a benzothiazole nucleus instead of the cyclohexylcarbothioamide moiety was synthesized. Various substituents, selected by exptl. design, were introduced in position 6 of the benzothiazole nucleus, in order to change its physico-chem. characteristics. The lipophilicity of the synthesized compds. was measured by means of RP-HPLC, and their H3-receptor affinity was evaluated by competitive binding assays on rat cortex synaptosomes, with the labeled ligand N.alpha.-[3H]methylhistamine. A QSAR anal. was performed on the exptl. data, using also substituent consts. taken from the literature. The newly synthesized compds. showed lower H3-affinities than thioperamide; quant. structure-activity relationships, described by models obtained with PLS and MRS techniques, were obsd. among benzothiazole derivs. According to these relationships, any attempt to improve the potency of these compds. should involve the substitution of the benzothiazole moiety with less bulky and/or more flexible structures, which should also be less lipophilic and allow better electronic interactions with the binding site. 1-(Benzothiazol-2-yl)-4-[(1H)-imidazol-4-yl]piperidine represents a limit structure for H3-activity, since it seems impossible to improve its affinity by means of substitution in the studied position of the benzothiazole nucleus, as shown by predictions performed by a PLS model.

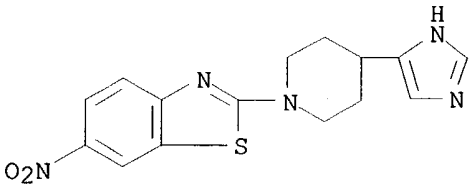
IT **146365-89-1P 156246-07-0P 156246-08-1P**
156246-09-2P 156246-10-5P 156246-11-6P
156246-12-7P 156246-13-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and H3-receptor affinity of)

RN 146365-89-1 CAPLUS
CN Benzothiazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)

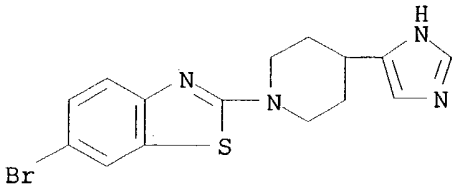


RN 156246-07-0 CAPLUS
CN Benzothiazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-6-nitro- (9CI) (CA

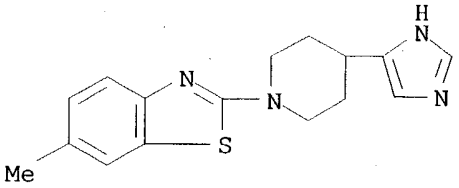
INDEX NAME)



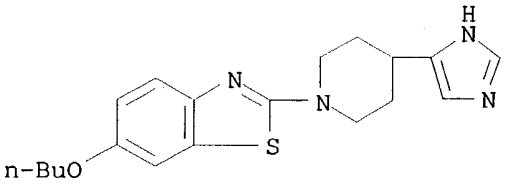
RN 156246-08-1 CAPLUS
CN Benzothiazole, 6-bromo-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



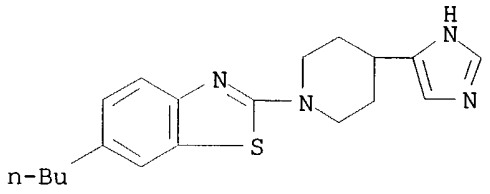
RN 156246-09-2 CAPLUS
CN Benzothiazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-6-methyl- (9CI) (CA INDEX NAME)



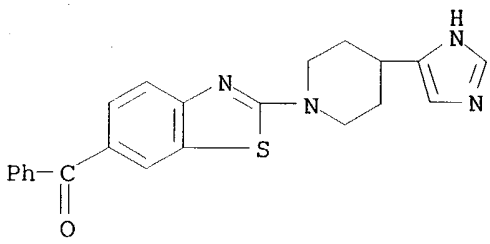
RN 156246-10-5 CAPLUS
CN Benzothiazole, 6-butoxy-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



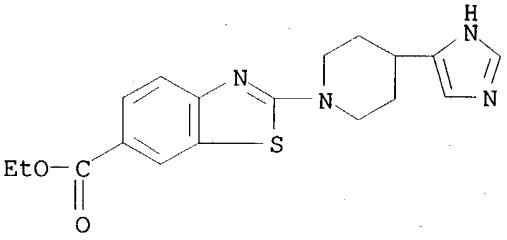
RN 156246-11-6 CAPLUS
CN Benzothiazole, 6-butyl-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 156246-12-7 CAPLUS
CN Methanone, [2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-6-benzothiazolyl]phenyl- (9CI) (CA INDEX NAME)



RN 156246-13-8 CAPLUS
CN 6-Benzothiazolecarboxylic acid, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-, ethyl ester (9CI) (CA INDEX NAME)

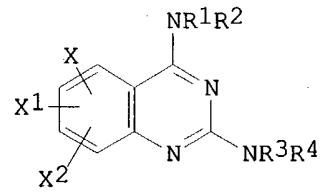


L10 ANSWER 22 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1992:490317 CAPLUS
DOCUMENT NUMBER: 117:90317
TITLE: Preparation of 2,4-diaminoquinazolines for enhancing antitumor activity
INVENTOR(S): Coe, Jotham Wadsworth; Fliri, Anton Franz; Kaneko, Takushi; Larson, Eric Robert
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: PCT Int. Appl., 83 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

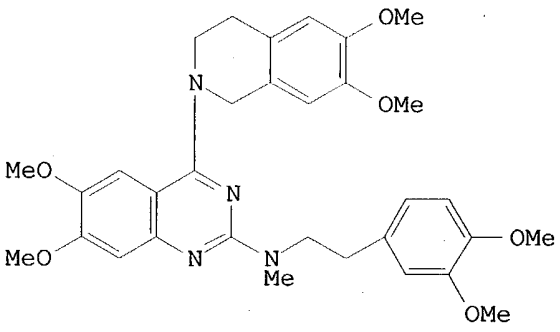
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9207844	A1	19920514	WO 1991-US7254	19911010
W: AU, BR, CA, CS, DE, FI, HU, JP, KR, NO, PL, SU, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				

CA 2095213	AA	19920507	CA 1991-2095213	19911010
AU 9190592	A1	19920526	AU 1991-90592	19911010
AU 644035	B2	19931202		
EP 556310	A1	19930825	EP 1992-900750	19911010
EP 556310	B1	19950705		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 05507290	T2	19931021	JP 1992-501815	19911010
HU 64533	A2	19940128	HU 1993-1314	19911010
BR 9107070	A	19940531	BR 1991-7070	19911010
ES 2074867	T3	19950916	ES 1992-900750	19911010
CN 1061411	A	19920527	CN 1991-108479	19911105
ZA 9108767	A	19930505	ZA 1991-8767	19911105
NO 9301635	A	19930505	NO 1993-1635	19930505
US 5444062	A	19950822	US 1993-50047	19930505
PRIORITY APPLN. INFO.:			US 1990-609986	19901106
			WO 1991-US7254	19911010

OTHER SOURCE(S): MARPAT 117:90317
ED Entered STN: 05 Sep 1992
GI



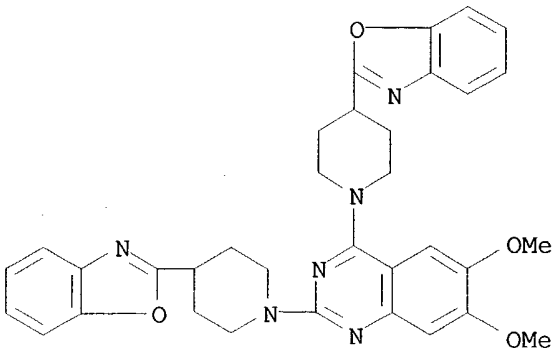
I



II

AB Title compds. [I; X, X1 = H, alkyl, alkoxy, Br, iodo, NO2, amino, Me2S+, aminomethyl, MeS, HOCH2, (substituted) benzoylamino, alkanoylamino, 4-methylpiperazino, morpholino, piperazino, pyrrolidino, etc.; X2 = H, alkyl, alkoxy; XX1 = ethylenedioxy, methylenedioxy; R1 = alkoxyalkyl, cycloalkyl, benzodioxan-2-ylmethyl; R2 = H, alkyl, PhCH2; R1R2 = (substituted) benzodiazepinyl, piperidino, decahydroisoquinol-2-yl, octahydroisoindol-2-yl, 1,2,3,4-tetrahydro-.beta.-carbol-2-yl; R3 = cycloalkyl, benzodioxan-2-ylmethyl, (substituted) aralkyl, pyridylalkyl, alkoxyalkyl, indolylalkyl, tetrahydronaphthyl, indenyl, naphthyl, etc.; R4 = H, alkyl; R3R4N = (substituted) tetrahydroisoquinolyl, piperidino, piperazino], were prepd. as p-glycoprotein inhibitors to reverse multidrug resistance (no data). Thus, 2,4-dichloro-6,7-dimethoxyquinazoline, 1,2,3,4-tetrahydro-6,7-dimethoxyisoquinoline, and Et3N were stirred 16 h in dimethylacetamide to give 2-chloro-4-(1,2,3,4-tetrahydro-6,7-dimethoxyisoquinol-2-yl)-6,7-dimethoxyquinazoline. The latter was heated with N-methyl-3,4-dimethoxyphenethylamine in ethoxyethoxyethanol to give title compd. II.

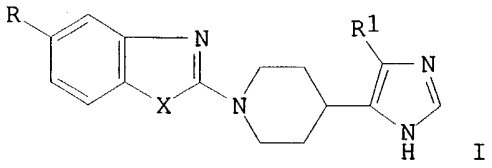
IT **142716-75-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as P-glycoprotein inhibitor)
RN 142716-75-4 CAPLUS
CN Quinazoline, 2,4-bis[4-(2-benzoxazolyl)-1-piperidinyl]-6,7-dimethoxy- (9CI) (CA INDEX NAME)



L10 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:124534 CAPLUS
DOCUMENT NUMBER: 118:124534
TITLE: Preparation of 2-(imidazolylpiperidino)benzimidazoles and analogs as 5-HT receptor ligands
INVENTOR(S): Jegham, Samir; Defosse, Gerard; Purcell, Thomas; Schoemaker, Johannes
PATENT ASSIGNEE(S): Synthelabo S. A., Fr.
SOURCE: Eur. Pat. Appl., 17 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 507650	A1	19921007	EP 1992-400780	19920323
EP 507650	B1	19960522		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE				
FR 2674855	A1	19921009	FR 1991-4009	19910403
FR 2674855	B1	19940114		
AT 138375	E	19960615	AT 1992-400780	19920323
CA 2064924	AA	19921004	CA 1992-2064924	19920402
NO 9201281	A	19921005	NO 1992-1281	19920402
AU 9213989	A1	19921008	AU 1992-13989	19920402
AU 646332	B2	19940217		
CN 1065459	A	19921021	CN 1992-102327	19920402
JP 05112563	A2	19930507	JP 1992-80690	19920402
JP 07088378	B4	19950927		
HU 62573	A2	19930528	HU 1992-1116	19920402
US 5280030	A	19940118	US 1992-862376	19920402

PRIORITY APPLN. INFO.: FR 1991-4009 19910403
OTHER SOURCE(S): MARPAT 118:124534
ED Entered STN: 30 Mar 1993
GI

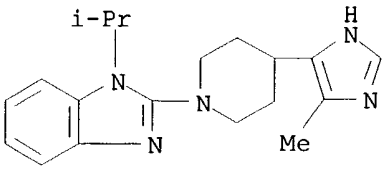


I

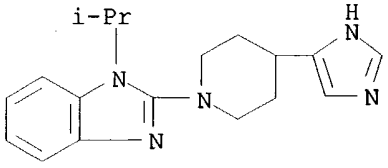
AB Title compds. [I; R = H, F; R1 = H, (cyclo)alkyl; X = O, S, NR3; R3 = H, (cyclo)alkyl, Ph, pyridyl, etc.] were prepd. Thus, 1-(4-pyridyl)-1-propanone was converted in 2 steps to 2-amino-1-(4-pyridyl)-1-propanone which was cyclocondensed with KSCN and the product converted in 2 steps to 4-(5-methyl-1H-imidazol-4-yl)piperidine. The latter was condensed with 2-chloro-1-(1-methylethyl)-1H-benzimidazole (prepn. given) to give I (R = H, R1 = Me, X = NCHMe2). I gave .gtoreq. 50% inhibition of serotonin-induced bradycardia in rats at 10 .mu.g/kg i.v.

IT **146365-53-9P 146365-54-0P 146365-56-2P**
146365-58-4P 146365-60-8P 146365-61-9P
146365-62-0P 146365-64-2P 146365-65-3P
146365-66-4P 146365-67-5P 146365-69-7P
146365-71-1P 146365-72-2P 146365-74-4P
146365-75-5P 146365-77-7P 146365-79-9P
146365-80-2P 146365-82-4P 146365-83-5P
146365-85-7P 146365-86-8P 146365-88-0P
146365-90-4P 146365-91-5P 146365-92-6P
146365-93-7P 146365-95-9P 146365-96-0P
146365-97-1P 146365-98-2P 146365-99-3P
146395-69-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as 5-HT receptor ligand)

RN 146365-53-9 CAPLUS
CN 1H-Benzimidazole, 1-(1-methylethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



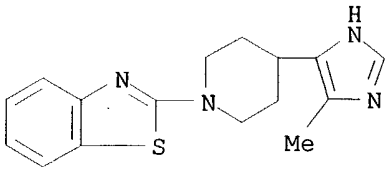
RN 146365-54-0 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 146365-56-2 CAPLUS
CN Benzothiazole, 2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

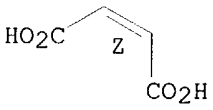
CRN 146365-55-1
CMF C16 H18 N4 S



CM 2

CRN 110-16-7
CMF C4 H4 O4

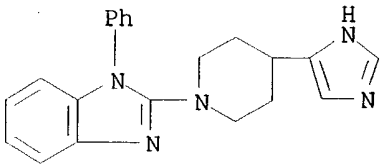
Double bond geometry as shown.



RN 146365-58-4 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-phenyl-, (2E)-2-butenedioate (2:3) (9CI) (CA INDEX NAME)

CM 1

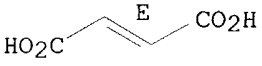
CRN 146365-57-3
CMF C21 H21 N5



CM 2

CRN 110-17-8
CMF C4 H4 O4

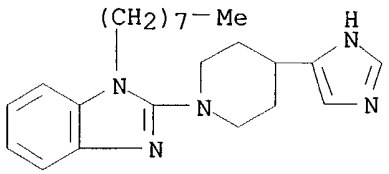
Double bond geometry as shown.



RN 146365-60-8 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-octyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

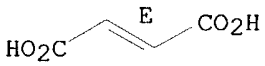
CRN 146365-59-5
CMF C23 H33 N5



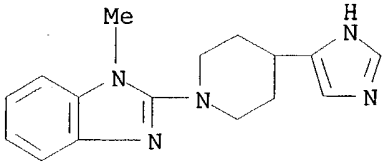
CM 2

CRN 110-17-8
CMF C4 H4 O4

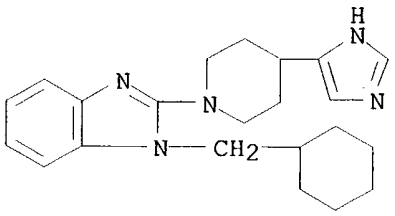
Double bond geometry as shown.



RN 146365-61-9 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-methyl- (9CI) (CA INDEX NAME)



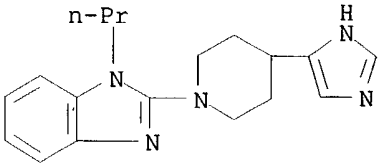
RN 146365-62-0 CAPLUS
CN 1H-Benzimidazole, 1-(cyclohexylmethyl)-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 146365-64-2 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-propyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

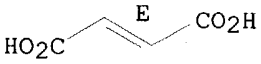
CRN 146365-63-1
CMF C18 H23 N5



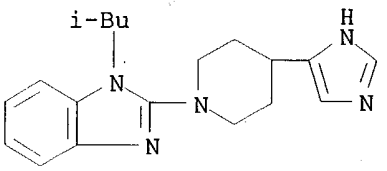
CM 2

CRN 110-17-8
CMF C4 H4 O4

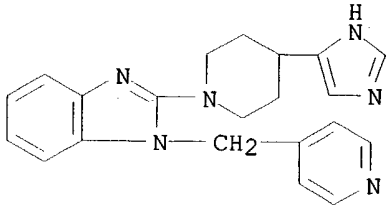
Double bond geometry as shown.



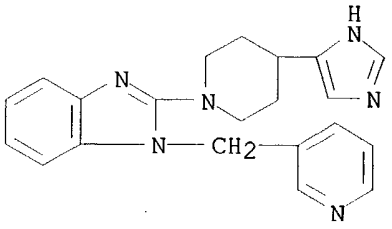
RN 146365-65-3 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(2-methylpropyl)- (9CI) (CA INDEX NAME)



RN 146365-66-4 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(4-pyridinylmethyl)- (9CI) (CA INDEX NAME)



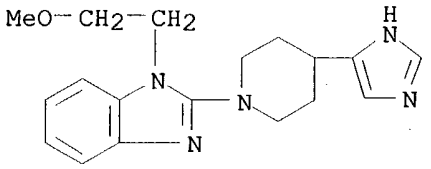
RN 146365-67-5 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(3-pyridinylmethyl)- (9CI) (CA INDEX NAME)



RN 146365-69-7 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(2-methoxyethyl)-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

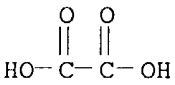
CM 1

CRN 146365-68-6
CMF C18 H23 N5 O



CM 2

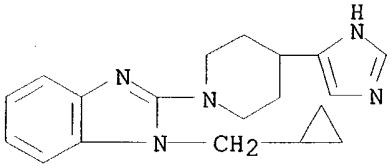
CRN 144-62-7
CMF C2 H2 O4



RN 146365-71-1 CAPLUS
CN 1H-Benzimidazole, 1-(cyclopropylmethyl)-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

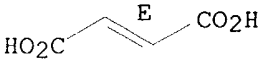
CRN 146365-70-0
CMF C19 H23 N5



CM 2

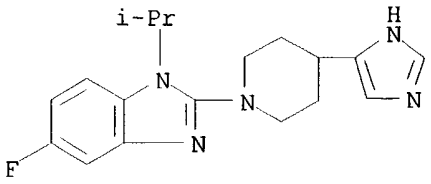
CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



RN 146365-72-2 CAPLUS
CN 1H-Benzimidazole, 5-fluoro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-

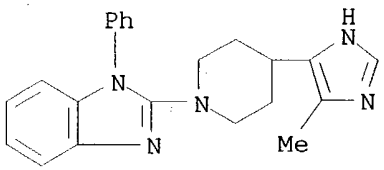
methylethyl)- (9CI) (CA INDEX NAME)



RN 146365-74-4 CAPLUS
CN 1H-Benzimidazole, 2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-1-phenyl-, (2E)-2-butenedioate (2:3) (9CI) (CA INDEX NAME)

CM 1

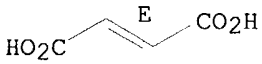
CRN 146365-73-3
CMF C22 H23 N5



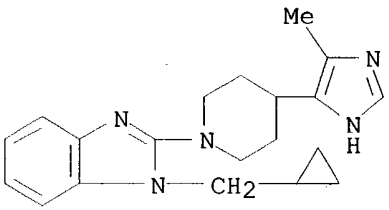
CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



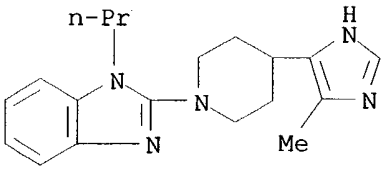
RN 146365-75-5 CAPLUS
CN 1H-Benzimidazole, 1-(cyclopropylmethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 146365-77-7 CAPLUS
CN 1H-Benzimidazole, 2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-1-propyl-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

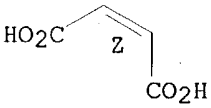
CRN 146365-76-6
CMF C19 H25 N5



CM 2

CRN 110-16-7
CMF C4 H4 O4

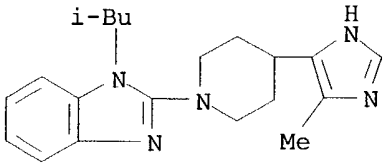
Double bond geometry as shown.



RN 146365-79-9 CAPLUS
CN 1H-Benzimidazole, 2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-1-(2-methylpropyl)-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

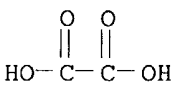
CM 1

CRN 146365-78-8
CMF C20 H27 N5

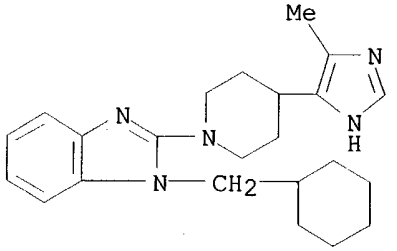


CM 2

CRN 144-62-7
CMF C2 H2 O4



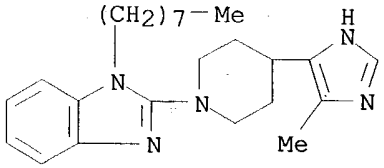
RN 146365-80-2 CAPLUS
CN 1H-Benzimidazole, 1-(cyclohexylmethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 146365-82-4 CAPLUS
CN 1H-Benzimidazole, 2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-1-octyl-, (2E)-2-butenedioate (2:5) (9CI) (CA INDEX NAME)

CM 1

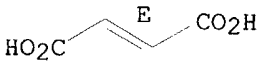
CRN 146365-81-3
CMF C24 H35 N5



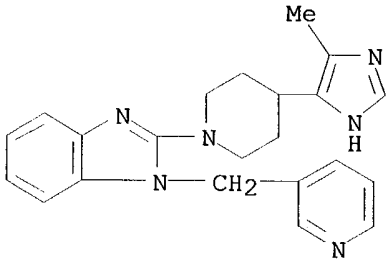
CM 2

CRN 110-17-8
CMF C4 H4 O4

Double bond geometry as shown.



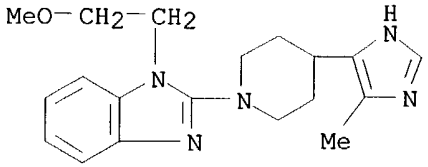
RN 146365-83-5 CAPLUS
CN 1H-Benzimidazole, 2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-1-(3-pyridinylmethyl)- (9CI) (CA INDEX NAME)



RN 146365-85-7 CAPLUS
CN 1H-Benzimidazole, 1-(2-methoxyethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

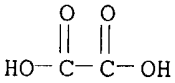
CM 1

CRN 146365-84-6
CMF C19 H25 N5 O

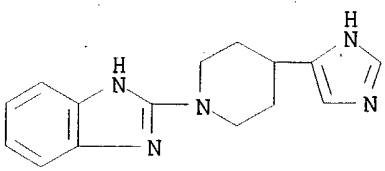


CM 2

CRN 144-62-7
CMF C2 H2 O4



RN 146365-86-8 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-, dihydrochloride (9CI) (CA INDEX NAME)

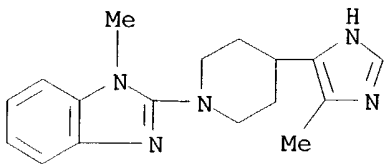


●2 HCl

RN 146365-88-0 CAPLUS
CN 1H-Benzimidazole, 1-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, ethanedioate (2:1) (9CI) (CA INDEX NAME)

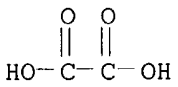
CM 1

CRN 146365-87-9
CMF C17 H21 N5



CM 2

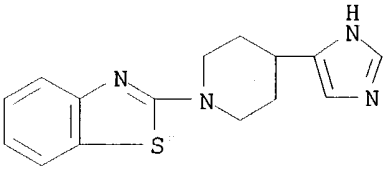
CRN 144-62-7
CMF C2 H2 O4



RN 146365-90-4 CAPLUS
CN Benzothiazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

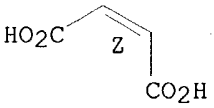
CRN 146365-89-1
CMF C15 H16 N4 S



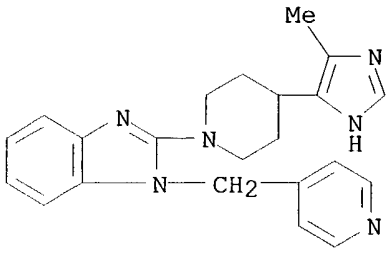
CM 2

CRN 110-16-7
CMF C4 H4 O4

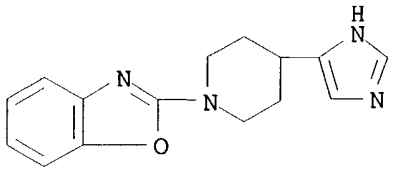
Double bond geometry as shown.



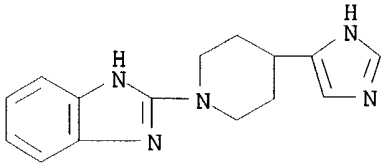
RN 146365-91-5 CAPLUS
CN 1H-Benzimidazole, 2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-1-(4-pyridinylmethyl)- (9CI) (CA INDEX NAME)



RN 146365-92-6 CAPLUS
CN Benzoxazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



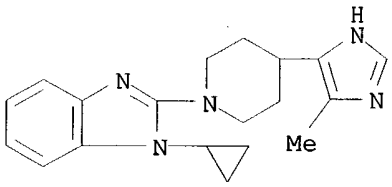
RN 146365-93-7 CAPLUS
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 146365-95-9 CAPLUS
CN 1H-Benzimidazole, 1-cyclopropyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

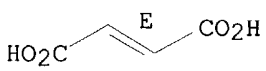
CRN 146365-94-8
CMF C19 H23 N5



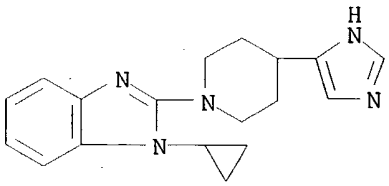
CM 2

CRN 110-17-8
CMF C4 H4 O4

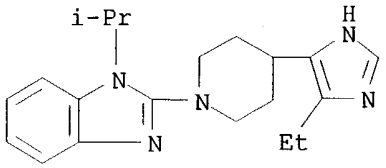
Double bond geometry as shown.



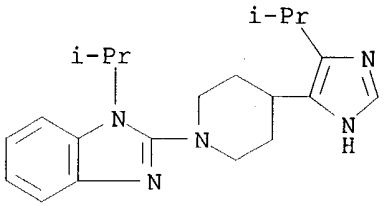
RN 146365-96-0 CAPLUS
CN 1H-Benzimidazole, 1-cyclopropyl-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



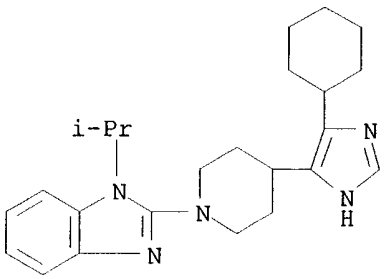
RN 146365-97-1 CAPLUS
CN 1H-Benzimidazole, 2-[4-(5-ethyl-1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)- (9CI) (CA INDEX NAME)



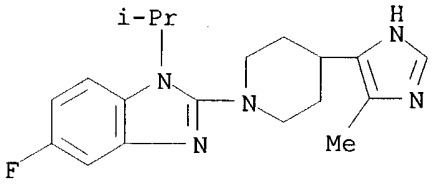
RN 146365-98-2 CAPLUS
CN 1H-Benzimidazole, 1-(1-methylethyl)-2-[4-[5-(1-methylethyl)-1H-imidazol-4-yl]-1-piperidinyl]- (9CI) (CA INDEX NAME)



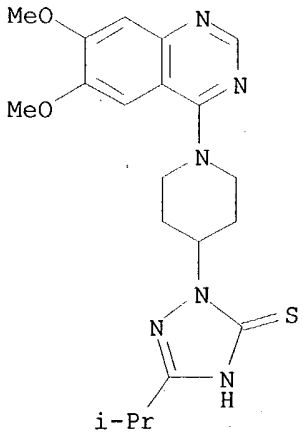
RN 146365-99-3 CAPLUS
CN 1H-Benzimidazole, 2-[4-(5-cyclohexyl-1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)- (9CI) (CA INDEX NAME)



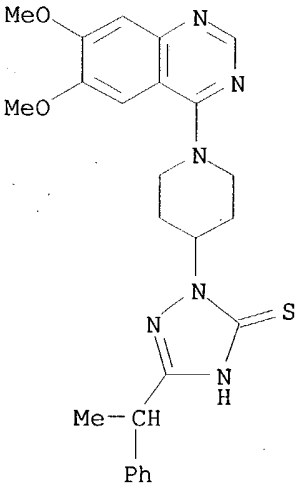
RN 146395-69-9 CAPLUS
CN 1H-Benzimidazole, 5-fluoro-1-(1-methylethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



L10 ANSWER 24 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1991:247227 CAPLUS
DOCUMENT NUMBER: 114:247227
TITLE: Studies on cardiotonic agents. V. Synthesis of 1-(6,7-dimethoxy-4-quinazolinyl)piperidine derivatives carrying various 5-membered heterocyclic rings at the 4-position
AUTHOR(S): Nomoto, Yuji; Takai, Haruki; Hirata, Tadashi; Teranishi, Masayuki; Ohno, Tetsuji; Kubo, Kazuhiro
CORPORATE SOURCE: Pharm. Res. Lab., Fuji, Kyowa Hakko Kogyo Co., Ltd., Nagaizumicho, 411, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1991), 39(1), 86-90
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 114:247227
ED Entered STN: 28 Jun 1991
AB A series of 1-(6,7-dimethoxy-4-quinazolinyl)piperidines carrying various 5-membered heterocycles at the 4-position was synthesized and examd. for cardiotonic activity in anesthetized dogs. The (4-oxo-2-thioxo-3-imidazolidinyl)amino derivs. showed the most potent inotropic activity. Marked loss of activity was obsd. in the 2,4-dihydro-3-thioxo-3H-1,2,4-triazolyl, the 2,4-dihydro-3-oxo-3H-pyrazolyl, and the (2,3-dihydro-2-thioxo-3H-1,3,4-thiadiazol-5-yl)amino derivs. The synthesis and structure-activity relationships are discussed.
IT **130492-43-2P 133785-70-3P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and cardiotonic activity of)
RN 130492-43-2 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 2-[1-(6,7-dimethoxy-4-quinazolinyl)-4-piperidinyl]-2,4-dihydro-5-(1-methylethyl)- (9CI) (CA INDEX NAME)



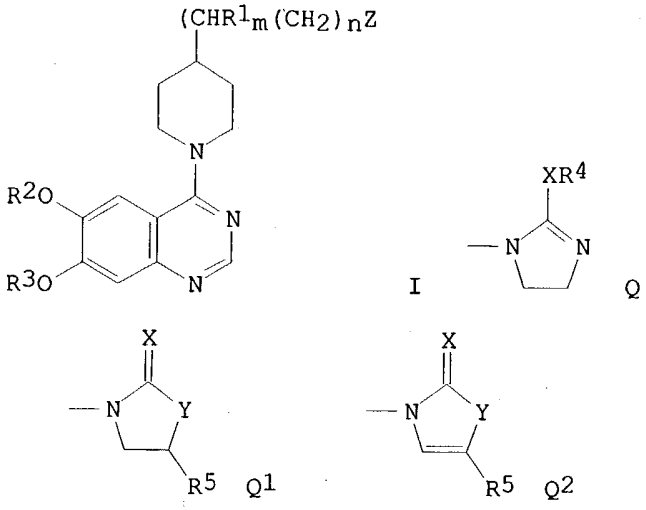
RN 133785-70-3 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 2-[1-(6,7-dimethoxy-4-quinazolinyl)-4-piperidinyl]-1,2-dihydro-5-(1-phenylethyl)- (9CI) (CA INDEX NAME)



L10 ANSWER 25 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1991:42809 CAPLUS
DOCUMENT NUMBER: 114:42809
TITLE: 4-Piperidinoquinazoline derivatievs as cardiotonics
INVENTOR(S): Teranishi, Masayuki; Nomoto, Yuji; Takai, Haruki; Kubo, Kazuhiro; Ono, Tetsuji
PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02193992	A2	19900731	JP 1989-13366	19890123
PRIORITY APPLN. INFO.:			JP 1989-13366	19890123

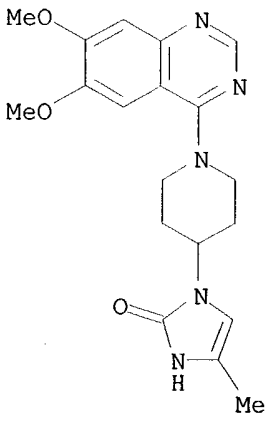
OTHER SOURCE(S): MARPAT 114:42809
ED Entered STN: 09 Feb 1991
GI



AB The title derivs. I [R1 - R3 = H, lower alkyl; Z = Q, Q1, Q2; R4 = H, (un)substituted lower alkyl, lower alkenyl, aralkyl, lower alkanoyl; R5 = H, lower alkyl; X = O, S, NR4; m = 0, 1; n = 0-4; provided that R4, R5 = any group other than H when X = O and m = n = O] and their pharmacol. acceptable salts are prepd. A mixt. of 1-(6,7-dimethoxyquinazolin-4-yl)-4-piperidinone 3.0, H2NCH2CH2NH2 6.5 g, and MeOH 30 mL was stirred at room temp. for 10 min, 4.9 g NaBH4 was gradually added, then the reaction mixt. was stirred for 2 h to give 2.3 g 4-.beta.-aminoethyl-1-(6,7-dimethoxyquinazolin-4-yl)piperidine (II). A mixt. of II 1.0 g, Et3N 0.7 g, CS2 1.0 g, and EtOH 5 mL was stirred under reflux for 15 h to give 1.0 g I (R2 = R3 = Me, R5 = H, Z = Q1, X = S, Y = NH, m = n = 0) (III). At 0.3 mg/kg i.v. in dogs, III increased myocardiac contractility by 42.7.+-.1.1% max. (percentage increase in dP/dt of light ventricular pressure), vs. 27.5.+-.11.7% for 1-(6,7-dimethoxyquinazolin-4-yl)-4-(N-butylcarbamoylamino)piperidine.

IT **130819-06-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as cardiotonic)

RN 130819-06-6 CAPLUS
CN 2H-Imidazol-2-one, 1-[1-(6,7-dimethoxy-4-quinazolinyl)-4-piperidinyl]-1,3-dihydro-4-methyl- (9CI) (CA INDEX NAME)



L10 ANSWER 26 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1990:612010 CAPLUS
DOCUMENT NUMBER: 113:212010
TITLE: Preparation of benzodiazine compounds as cardiotonics
INVENTOR(S): Nomoto, Yuji; Takai, Haruki; Ono, Tetsuji; Kubo, Kazuhiro
PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02167277	A2	19900627	JP 1989-153222	19890615

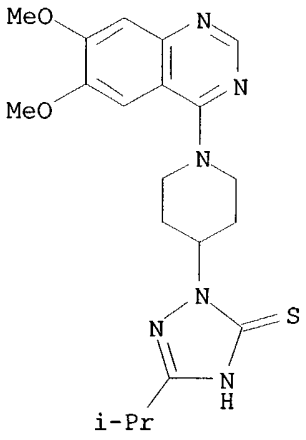
PRIORITY APPLN. INFO.: JP 1988-234517 19880919
OTHER SOURCE(S): MARPAT 113:212010
ED Entered STN: 08 Dec 1990
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

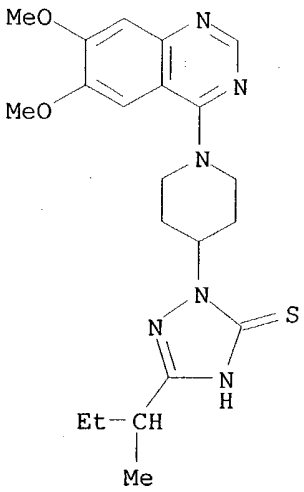
AB Benzodiazine [I; R,R1 = alkyl; A:B = CH:N, N:CR2 wherein R2 = H, alkyl; X = CH, N; Z = Q, Q1, Q2, etc. wherein W = O, S; R3-R8 = (CH2)3-4; m = 0-2; n = 0, 1] and their pharmaceutically acceptable salts are prepd. Thiosemicarbazide II (prepn. given) was dissolved in HCO2H and the soln. heated 4 h at 100.degree. to give 74% III, which increased the heart beat by (3.7 .+-. 1.2)% and lowered the blood pressure by (15.1 .+-. 4.5)% at 0.15 mg/kg i.v. in dogs. Also prepd. and tested were 28 addnl. I.

IT **130492-43-2P 130492-44-3P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as cardiotonic)

RN 130492-43-2 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 2-[1-(6,7-dimethoxy-4-quinazolinyl)-4-piperidinyl]-2,4-dihydro-5-(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 130492-44-3 CAPLUS
CN 3H-1,2,4-Triazole-3-thione, 2-[1-(6,7-dimethoxy-4-quinazolinyl)-4-piperidinyl]-2,4-dihydro-5-(1-methylpropyl)- (9CI) (CA INDEX NAME)



L10 ANSWER 27 OF 38 USPATFULL on STN
ACCESSION NUMBER: 2004:39324 USPATFULL
TITLE: Benzimidazole derivatives, preparation and therapeutic use thereof
INVENTOR(S): Barth, Francis, Saint Georges D'Orques, FRANCE
Bichon, Daniel, Montpellier, FRANCE
Bolkenius, Frank, Kehl, GERMANY, FEDERAL REPUBLIC OF
Van Dorsselaer, Viviane, Strasbourg, FRANCE

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004029866	A1	20040212	
APPLICATION INFO.:	US 2003-432672	A1	20030523	(10)
	WO 2001-FR3667		20011121	

	NUMBER	DATE
PRIORITY INFORMATION:	FR 2000-15141	20001123
	FR 2001-6157	20010510

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP, 1300 I STREET, NW, WASHINGTON, DC, 20005
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
LINE COUNT: 1448
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to benzimidazole derivatives of general formula (I) ##STR1##

in which

X represents a nitrogen atom or a carbon atom;

and when X represents a nitrogen atom

R3 represents in particular a hydrogen atom or a (C1-C4)alkyl group,

R4 represents in particular a hydrogen atom; a (C1-C6)alkyl; (C3-C7)cycloalkyl; 4-piperidyl; --(CH.sub.2).sub.p--NR5R6; --(CH.sub.2).sub.p--CONR5R6; --CO--(CH.sub.2).sub.p--NR5R6; --(CH.sub.2).sub.p-phenyl; --(CH.sub.2).sub.p-morpholinyl; --(CH.sub.2).sub.p-pyrrolidinyl; --(CH.sub.2).sub.p-tetrahydroisoquinoline; --(CH.sub.2).sub.p-heteroaryl; heteroarylcarbonyl; phenylcarbonyl; (C1-C6)alkylcarbonyl; --(CH.sub.2).sub.p--COOR'; or phenylsulphonyl group;

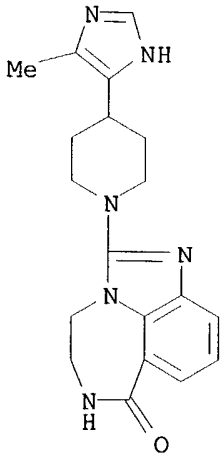
and when X represents a carbon atom

R3 represents a hydrogen atom; a group --NR5R6; --NHCOR7; --CONHR5; --COR7; --NHCONH.sub.2; --OH or --CH.sub.2OH,

R4 represents in particular a hydrogen atom; an optionally substituted group --(CH.sub.2).sub.p-phenyl; a group --(CH.sub.2).sub.p-heteroaryl; or a group --(CH.sub.2).sub.tNR7R8.

Preparation process and therapeutic application.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **429689-45-2P**, 2-[4-(5-Methyl-1H-imidazol-4-yl)piperidin-1-yl]-5,6-dihydroimidazo[4,5,1-jk][1,4]benzodiazepin-7(4H)-one
(drug candidate; prepn. of benzimidazole derivs. as PARP inhibitors)
RN 429689-45-2 USPATFULL
CN Imidazo[4,5,1-jk][1,4]benzodiazepin-7(4H)-one, 5,6-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



L10 ANSWER 28 OF 38 USPATFULL on STN
ACCESSION NUMBER: 2003:289134 USPATFULL
TITLE: Benzimidazole derivatives, preparation and therapeutic use thereof
INVENTOR(S): Barth, Francis, Saint-Georges D'Oques, FRANCE
Bichon, Daniel, Montpellier, FRANCE
Bolkenius, Frank, Kehl, GERMANY, FEDERAL REPUBLIC OF
Van Dorsselaer, Viviane, Strasbourg, FRANCE

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003203893	A1	20031030	
APPLICATION INFO.:	US 2003-343467	A1	20030130	(10)
	WO 2001-FR2556		20010806	

	NUMBER	DATE
PRIORITY INFORMATION:	FR 2000-10419	20000808
	FR 2000-14696	20001115

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: SANOFI-SYNTHELABO INC., 9 GREAT VALLEY PARKWAY, P.O. BOX 3026, MALVERN, PA, 19355
NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
LINE COUNT: 1837
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to benzimidazole derivatives of general formula ##STR1##

in which

X represents a nitrogen atom or a carbon atom;

and when X represents a nitrogen atom:

R3 represents a hydrogen atom or a C1-C4 alkyl group, or does not exist, to give the compounds of formula (I) comprising a secondary or tertiary amine;

R4 represents a hydrogen atom or a C1-C6 alkyl, C3-C7 cycloalkyl, optionally substituted C3-C7 heterocycloalkyl, --(CH.sub.2).sub.p-heteroaryl, heteroaryl-carbonyl, phenylcarbonyl, (C1-C6)alkylcarbonyl,

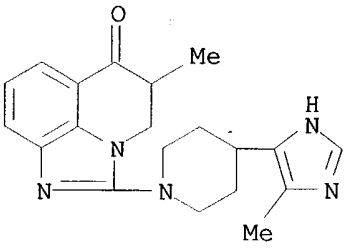
--(CH.sub.2).sub.pCOOR, optionally substituted phenylsulphonyl or optionally substituted --(CH.sub.2).sub.p-phenyl group,

and, when X represents a carbon atom: p2 R3 represents a hydrogen atom or a group --NR5R6, --N(R5).sub.3.sup.+, --NHCOR7, --CONHR5, --COR7, --NHCONH.sub.2, --OH or --CH.sub.2OH,

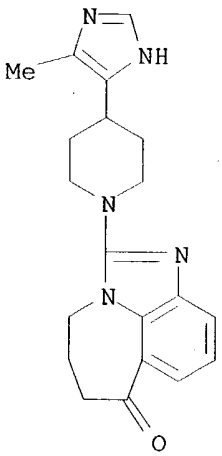
R4 represents a hydrogen atom or an optionally substituted --(CH.sub.2).sub.p-phenyl, --(CH.sub.2).sub.p-heteroaryl or --(CH.sub.2).sub.tNR7R8 group.

Preparation process and therapeutic application.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **398457-80-2P**, 5-Methyl-2-[4-(5-methylimidazol-4-yl)piperidin-1-yl]-4,5-dihydroimidazo[4,5,1-ij]quinolin-6-one **398457-81-3P**, 1-[4-(5-Methylimidazol-4-yl)piperidin-1-yl]-8,9-dihydro-7H-2,9a-diazabenzo[cd]azulen-6-one
(drug candidate; prepn. of fused benzimidazole derivs. as PARP inhibitors)
RN 398457-80-2 USPATFULL
CN 6H-Imidazo[4,5,1-ij]quinolin-6-one, 4,5-dihydro-5-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 398457-81-3 USPATFULL
CN Imidazo[4,5,1-jk][1]benzazepin-7(4H)-one, 5,6-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



L10 ANSWER 29 OF 38 USPATFULL on STN
ACCESSION NUMBER: 2002:149314 USPATFULL
TITLE: Heterocyclic amino substituted heteroaryl fused

pyridines; GABA brain receptor ligands

INVENTOR(S): Cai, Guolin, Guilford, CT, UNITED STATES
Liu, Gang, Agoura, CA, UNITED STATES
Chen, Guoquing, North Branford, CT, UNITED STATES
Albaugh, Pamela, Clinton, CT, UNITED STATES

PATENT ASSIGNEE(S): Neurogen (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002077474	A1	20020620
	US 6423711	B2	20020723
APPLICATION INFO.:	US 2000-736497	A1	20001213 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-259146, filed on 26 Feb 1999, GRANTED, Pat. No. US 6166203

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-76099P	19980226 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Steven J. Sarussi, McDonnell Boehnen Hulbert & Berghoff, 32nd Floor, 300 S. Wacker Drive, Chicago, IL, 60606
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
LINE COUNT: 1508
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are compounds of the formula ##STR1##

or the pharmaceutically acceptable non-toxic salts thereof

wherein:

n is an integer from 0 to 3;

the C ring is aryl or heteroaryl;

X is CH, N, or O

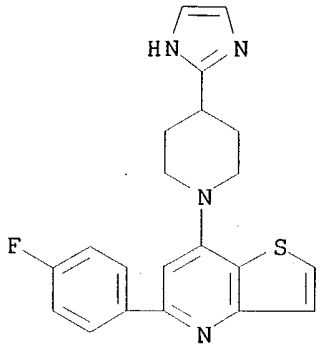
Z represents an electron pair, hydrogen, or (un)substituted heterocycle, aryl, or amido;

W is (un)substituted alkyl, aryl, or heteroaryl;

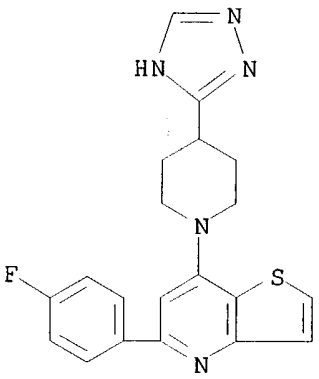
A and B are hydrogen or lower alkyl,

which compounds are highly selective agonists, antagonists or inverse agonists for GABAa brain receptors or prodrugs of agonists, antagonists or inverse agonists for GABAa brain receptors. These compounds are useful in the diagnosis and treatment of anxiety, Down Syndrome, sleep, cognitive and seizure disorders, and overdose with benzodiazepine drugs and for enhancement of alertness.

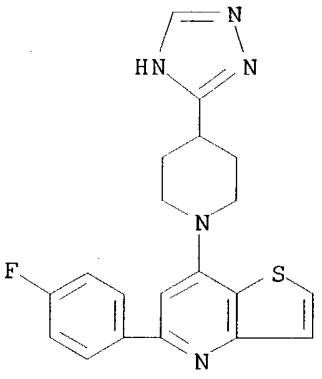
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **239799-72-5P 239799-74-7P 239799-75-8P**
(prepn. of 1-(5-arylthieno[3,2-b]pyridin-7-yl)piperidine-4-carboxamides and analogs as GABAA receptor ligands)
RN 239799-72-5 USPATFULL
CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-imidazol-2-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 239799-74-7 USPATFULL
CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-1,2,4-triazol-3-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 239799-75-8 USPATFULL
CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-1,2,4-triazol-3-yl)-1-piperidinyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L10 ANSWER 30 OF 38 USPATFULL on STN
ACCESSION NUMBER: 2002:224619 USPATFULL
TITLE: 4-phenyl-4-heteroarylpiperidine derivatives
INVENTOR(S): Liras, Spiros, Stonington, CT, United States
McHardy, Stanton F., Coventry, RI, United States
PATENT ASSIGNEE(S): Pfizer Inc, New York, NY, United States (U.S. corporation)

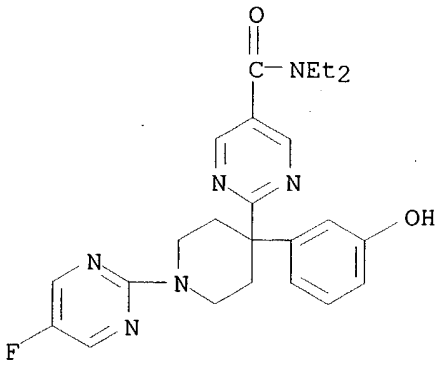
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6444679	B1	20020903
APPLICATION INFO.:	US 2000-503679		20000214 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-121156P	19990222 (60)

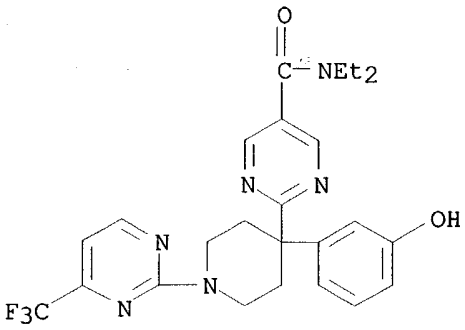
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Shah, Mukund J.
ASSISTANT EXAMINER: Truong, Tamthom N.
LEGAL REPRESENTATIVE: Richardson, Peter C., Ginsburg, Paul H., Jacobs, Seth H.
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)
LINE COUNT: 1963
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to compounds of the formula I, ##STR1##

wherein Z.sup.1, X, Y, ( ).sub.n, R.sub.1, R.sup.2 and R.sup.3 are defined as in the specification, pharmaceutical compositions containing such compounds; and the use of such compounds to treat neurological and gastrointestinal disorders.

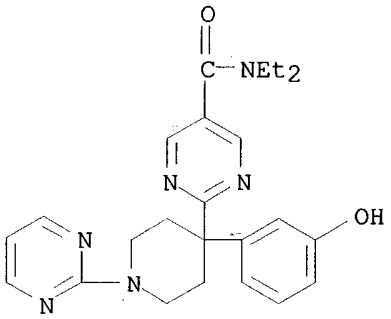
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **291753-96-3P 291753-97-4P 291753-99-6P**
291754-01-3P 291754-03-5P 291754-38-6P
291754-39-7P 291754-40-0P 291754-41-1P
(prepn. of phenylheteroarylpiperidines as ligands for opioid receptors and drugs)
RN 291753-96-3 USPATFULL
CN 5-Pyrimidinecarboxamide, N,N-diethyl-2-[1-(5-fluoro-2-pyrimidinyl)-4-(3-hydroxyphenyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



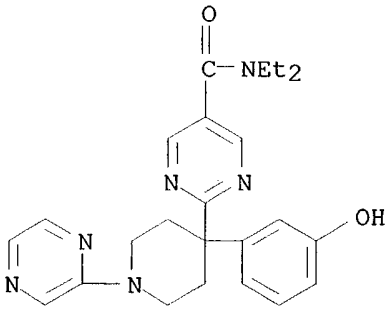
RN 291753-97-4 USPATFULL
CN 5-Pyrimidinecarboxamide, N,N-diethyl-2-[4-(3-hydroxyphenyl)-1-[4-(trifluoromethyl)-2-pyrimidinyl]-4-piperidinyl]- (9CI) (CA INDEX NAME)



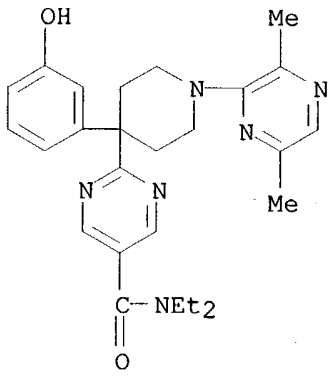
RN 291753-99-6 USPATFULL
CN 5-Pyrimidinecarboxamide, N,N-diethyl-2-[4-(3-hydroxyphenyl)-1-(2-pyrimidinyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



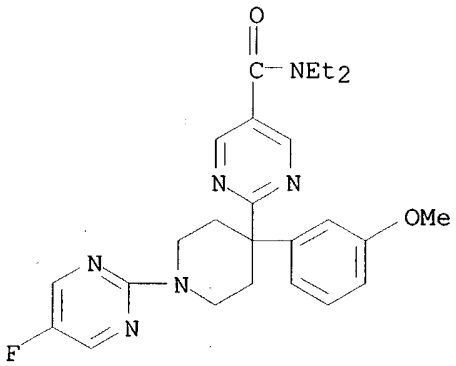
RN 291754-01-3 USPATFULL
CN 5-Pyrimidinecarboxamide, N,N-diethyl-2-[4-(3-hydroxyphenyl)-1-pyrazinyl-4-piperidinyl]- (9CI) (CA INDEX NAME)



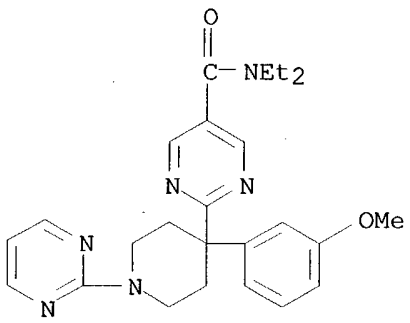
RN 291754-03-5 USPATFULL
CN 5-Pyrimidinecarboxamide, 2-[1-(3,6-dimethylpyrazinyl)-4-(3-hydroxyphenyl)-4-piperidinyl]-N,N-diethyl- (9CI) (CA INDEX NAME)



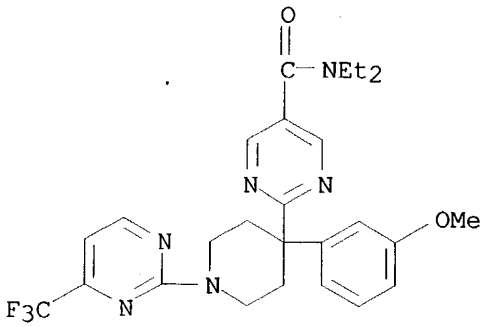
RN 291754-38-6 USPATFULL
CN 5-Pyrimidinecarboxamide, N,N-diethyl-2-[1-(5-fluoro-2-pyrimidinyl)-4-(3-methoxyphenyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



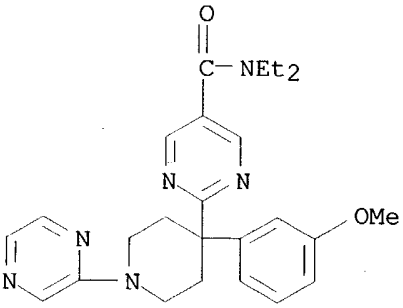
RN 291754-39-7 USPATFULL
CN 5-Pyrimidinecarboxamide, N,N-diethyl-2-[4-(3-methoxyphenyl)-1-(2-pyrimidinyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



RN 291754-40-0 USPATFULL
CN 5-Pyrimidinecarboxamide, N,N-diethyl-2-[4-(3-methoxyphenyl)-1-[4-(trifluoromethyl)-2-pyrimidinyl]-4-piperidinyl]- (9CI) (CA INDEX NAME)



RN 291754-41-1 USPATFULL
CN 5-Pyrimidinecarboxamide, N,N-diethyl-2-[4-(3-methoxyphenyl)-1-pyrazinyl-4-piperidinyl]- (9CI) (CA INDEX NAME)



L10 ANSWER 31 OF 38 USPATFULL on STN

ACCESSION NUMBER:	2002:181689 USPATFULL
TITLE:	2,4-Substituted imidazolidine derivatives, their preparation, their use and pharmaceutical preparations comprising them
INVENTOR(S):	Wehner, Volkmar, Sandberg, GERMANY, FEDERAL REPUBLIC OF Stilz, Hans Ulrich, Frankfurt, GERMANY, FEDERAL REPUBLIC OF Schmidt, Wolfgang, Frankfurt, GERMANY, FEDERAL REPUBLIC OF Seiffge, Dirk, Mainz-Kostheim, GERMANY, FEDERAL REPUBLIC OF
PATENT ASSIGNEE(S):	Aventis Pharma Deutschland GmbH, Frankfurt am Main, GERMANY, FEDERAL REPUBLIC OF (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6423712	B1	20020723	
APPLICATION INFO.:	US 1998-157241		19980918	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1997-19741235	19970918

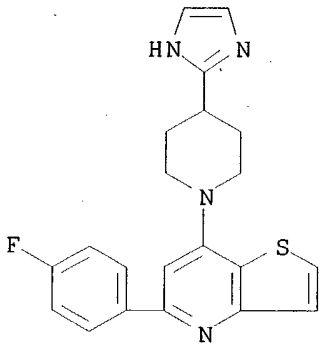
DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED
PRIMARY EXAMINER:	Higel, Floyd D.
LEGAL REPRESENTATIVE:	Heller Ehrman White and McAuliffe LLP
NUMBER OF CLAIMS:	17
EXEMPLARY CLAIM:	1

NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)
LINE COUNT: 3260
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

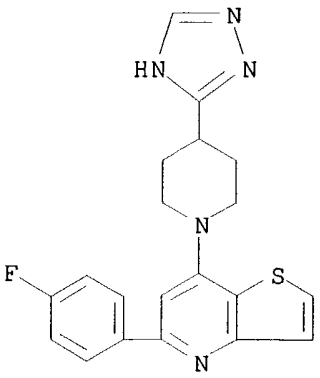
AB The present invention relates to imidazolidine compounds of the formula I, ##STR1##

The compounds of the formula I are valuable pharmaceutical active compounds, which are suitable, for example, for the therapy and prophylaxis of inflammatory disorders, for example of rheumatoid arthritis, or of allergic disorders. The compounds of the formula I are inhibitors of the adhesion and migration of leucocytes and/or antagonists of the adhesion receptor VLA-4 belonging to the integrins group. They are generally suitable for the therapy or prophylaxis of illnesses which are caused by an undesired extent of leucocyte adhesion and/or leucocyte migration or are associated therewith, or in which cell-cell or cell-matrix interactions which are based on interactions of VLA-4 receptors with their ligands play a part. The invention furthermore relates to processes for the preparation of the compounds of the formula I, their use in the therapy and prophylaxis of the disease states mentioned and pharmaceutical preparations which contain compounds of the formula I.

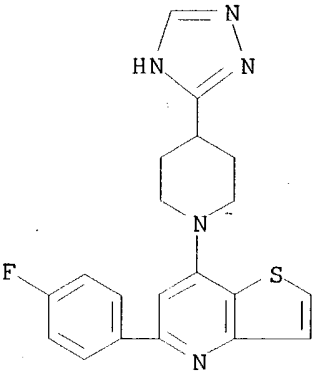
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **239799-72-5P 239799-74-7P 239799-75-8P**
(prepn. of 1-(5-arylthieno[3,2-b]pyridin-7-yl)piperidine-4-carboxamides and analogs as GABAA receptor ligands)
RN 239799-72-5 USPATFULL
CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-imidazol-2-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 239799-74-7 USPATFULL
CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-1,2,4-triazol-3-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 239799-75-8 USPATFULL
CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-1,2,4-triazol-3-yl)-1-piperidinyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L10 ANSWER 32 OF 38 USPATFULL on STN
ACCESSION NUMBER: 2001:168140 USPATFULL
TITLE: Aryl and heteroaryl substituted pyridino derivatives GABA brain receptor ligands
INVENTOR(S): Cai, Guolin, Guilford, CT, United States
Liu, Gang, Agoura, CA, United States
Albaugh, Pamela A., Clinton, CT, United States
PATENT ASSIGNEE(S): Neurogen Corporation, Branford, CT, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6297256	B1	20011002
APPLICATION INFO.:	US 2000-596031		20000615 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-139202P	19990615 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED

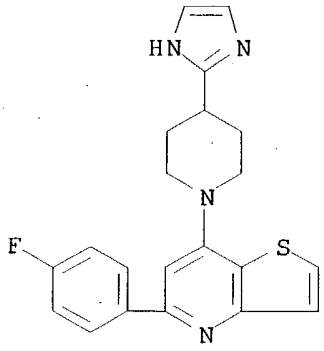
PRIMARY EXAMINER: Davis, Zinna Northington
LEGAL REPRESENTATIVE: McDonnell Boehnen Hulbert & Berghoff
NUMBER OF CLAIMS: 22
EXEMPLARY CLAIM: 1
LINE COUNT: 1011
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are aryl and heteroaryl substitated pyridino compounds. These compounds are highly selective agonists, antagonists or inverse agonists for GABA.sub.A brain receptors or prodrugs of agonists, antagonists or inverse agonists for GABA.sub.A brain receptors and are therefore useful in the diagnosis and treatment of anxiety, depression, Down Syndrome, sleep and seizure disorders, overdose with benzodiazepine drugs and for enhancement of memory. Pharmaceutical compositions, including packaged pharmaceutical compositions, are further provided. Compounds of the invention are also useful as probes for the localization of GABA.sub.A receptors in tissue samples.

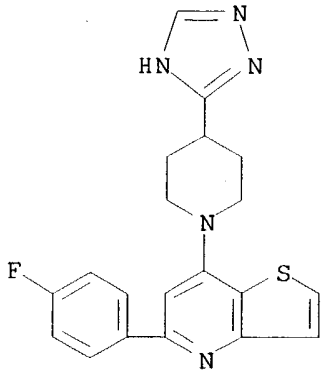
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **239799-72-5P 239799-74-7P 239799-75-8P**
(prepn. of aryl and heteroaryl substituted thienopyridines and quinolines as GABA brain receptor ligands)

RN 239799-72-5 USPATFULL
CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-imidazol-2-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)

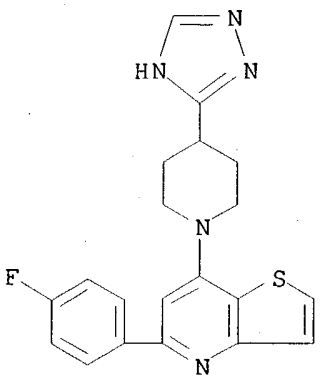


RN 239799-74-7 USPATFULL
CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-1,2,4-triazol-3-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 239799-75-8 USPATFULL

CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-1,2,4-triazol-3-yl)-1-piperidinyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L10 ANSWER 33 OF 38 USPATFULL on STN

ACCESSION NUMBER:	2000:174829 USPATFULL
TITLE:	Heterocyclic amino substituted heteroaryl fused pyridines; GABA brain receptor ligands
INVENTOR(S):	Cai, Guolin, Guilford, CT, United States Liu, Gang, Agoura, CA, United States Chen, Guoquing, North Branford, CT, United States Albaugh, Pamela A., Clinton, CT, United States
PATENT ASSIGNEE(S):	Neurogen Corporation, Branford, CT, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6166203		20001226	
APPLICATION INFO.:	US 1999-259146		19990226	(9)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Higel, Floyd D.
LEGAL REPRESENTATIVE:	McDonnell Boehnen Hulbert & Berghoff
NUMBER OF CLAIMS:	18
EXEMPLARY CLAIM:	1
LINE COUNT:	1455

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are compounds of the formula ##STR1## or the pharmaceutically acceptable non-toxic salts thereof wherein: n is an integer from 0 to 3;

the C ring is aryl or heteroaryl;

X is CH, N, or O

Z represents an electron pair, hydrogen, or (un)substituted heterocycle, aryl, or amido;

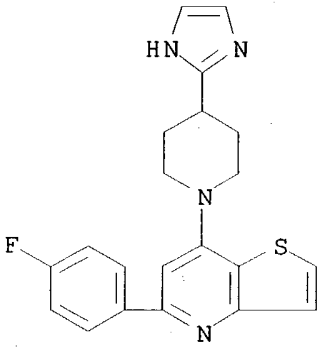
W is (un)substituted alkyl, aryl, or heteroaryl;

A and B are hydrogen or lower alkyl,

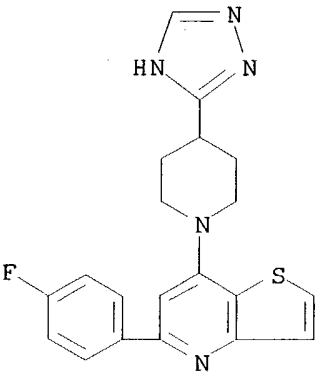
which compounds are highly selective agonists, antagonists or inverse

agonists for GABAa brain receptors or prodrugs of agonists, antagonists or inverse agonists for GABAa brain receptors. These compounds are useful in the diagnosis and treatment of anxiety, Down Syndrome, sleep, cognitive and seizure disorders, and overdose with benzodiazepine drugs and for enhancement of alertness.

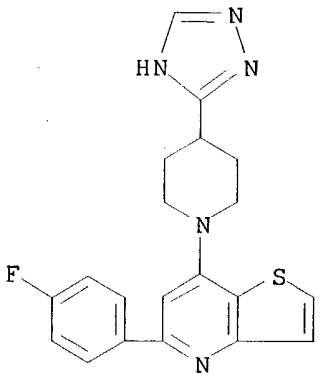
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **239799-72-5P 239799-74-7P 239799-75-8P**
(prepn. of 1-(5-arylthieno[3,2-b]pyridin-7-yl)piperidine-4-carboxamides and analogs as GABAA receptor ligands)
RN 239799-72-5 USPATFULL
CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-imidazol-2-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 239799-74-7 USPATFULL
CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-1,2,4-triazol-3-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 239799-75-8 USPATFULL
CN Thieno[3,2-b]pyridine, 5-(4-fluorophenyl)-7-[4-(1H-1,2,4-triazol-3-yl)-1-piperidinyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L10 ANSWER 34 OF 38 USPATFULL on STN

ACCESSION NUMBER:	1999:146577 USPATFULL
TITLE:	Angiogenesis inhibiting pyridazinamines
INVENTOR(S):	Stokbroekx, Raymond Antoine, Beerse, Belgium Van der Aa, Marcel Jozef Maria, Turnhout, Belgium Willems, Marc, Vosselaar, Belgium Meerpoel, Lieven, Merksplas, Belgium Luyckx, Marcel Gerebernus Maria, Geel, Belgium Tuman, Robert, Spring House, PA, United States
PATENT ASSIGNEE(S):	Janssen Pharmaceuticals, N.V., Beerse, Belgium (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5985878		19991116	
APPLICATION INFO.:	US 1998-119075		19980709	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1996-200085	19960115

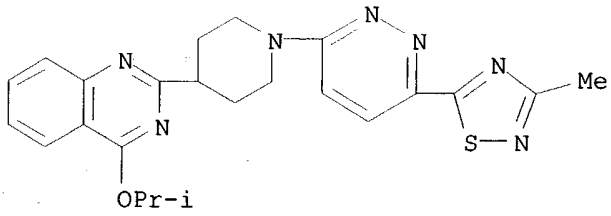
DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Ambrose, Michael G.
LEGAL REPRESENTATIVE:	Coletti, Ellen Ciambrone
NUMBER OF CLAIMS:	10
EXEMPLARY CLAIM:	1
LINE COUNT:	1252

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention concerns compounds of formula the N-oxide forms, the pharmaceutically acceptable acid addition salts and stereochemically isomeric forms thereof, wherein X is CH or N; m is 2 or 3 and n is 1, 2 or 3; wherein 1 or 2 C-atoms of the CH.sub.2 groups of the ##STR1## moiety which may also contain one double bond, may be substituted with C.sub.1-6 alkyl, amino, aminocarbonyl, mono- or di(C.sub.1-6 alkyl)amino, C.sub.1-6 alkyloxycarbony, C.sub.1-6 alkylcarbonylamino, hydroxy or C.sub.1-6 alkyloxy; and/or 2 C-atoms of said CH.sub.2 groups may be bridged with C.sub.2-4 alkanediyl; R.sup.1 is hydrogen, C.sub.1-6 alkyl, C.sub.1-6 alkyloxy, C.sub.1-6 alkylthio, amino, mono- or di(C.sub.1-6 alkyl)amino, Ar, ArNH--, C.sub.3-6 cycloalkyl, hydroxymethyl or benzyloxymethyl; R.sup.2 and R.sup.3 are hydrogen, or taken together may form a bivalent radical of formula

--CH.dbd.CH--CH.dbd.CH--; in case X represents CH then L is a radical L.sup.1, L.sup.2 or L.sup.3 ; or in case X represents N then L is a radical L.sup.2 or L.sup.3 ; L.sup.1 is Ar-C.sub.1-6 alkyloxy, Ar-oxy, Ar-thio, Ar-carbonylamino, di-Ar-methyloxy-, N-Ar-piperazinyl, N-Ar-homopiperazinyl, 2-benzimidazolinonyl, Ar--NR.sup.4 --, Ar-Alk-NR.sup.4 --, Ar--NR.sup.4 -Alk-NR.sup.5 -- or Het-NR.sup.4 --; L.sup.2 is Ar, Ar-carbonyl, Ar--CH.dbd.CH--CH.sub.2 --, naphtalenyl or Het; L.sup.3 is C.sub.1-6 alkyl substituted with one or two radicals selected from Ar, Ar-oxy, or Ar-thio, further optionally substituted with cyano or hydroxy; 2,2-dimethyl-1,2,3,4-tetrahydro-naphtalenyl; 2,2-dimethyl-1H-2,3-dihydroindenyl;Ar-piperidinyl or Ar--NR.sup.4 -Alk-; R.sup.4 and R.sup.5 are each independently selected from hydrogen or C.sub.1-6 alkyl; Alk is C.sub.1-6 alkanediyl; their preparation, compositions containing them and their use as a medicine.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **193956-99-9P**
(prepn. of thiadiazolylpyrazinylamines as angiogenesis inhibitors)
RN 193956-99-9 USPATFULL
CN Quinazoline, 4-(1-methylethoxy)-2-[1-[6-(3-methyl-1,2,4-thiadiazol-5-yl)-3-pyridazinyl]-4-piperidinyl]- (9CI) (CA INDEX NAME)



L10 ANSWER 35 OF 38 USPATFULL on STN
ACCESSION NUMBER: 96:120886 USPATFULL
TITLE: Imidazol-4-ylpiperidine derivatives, their preparation and their application in therapeutics
INVENTOR(S): Jegham, Samir, Argenteuil, France
Defosse, G erard, Paris, France
Purcell, Thomas A., Montfort L'Amaury, France
Even, Luc, Paris, France
PATENT ASSIGNEE(S): Synthelabo, Le Plessis Robinson, France (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5589476		19961231	
APPLICATION INFO.:	US 1994-317661		19941003	(8)

	NUMBER	DATE
PRIORITY INFORMATION:	FR 1993-11771	19931004

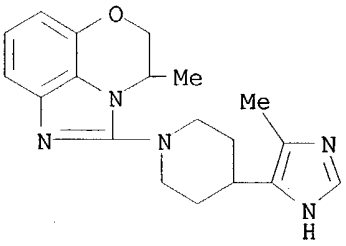
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Grumbling, Matthew V.
LEGAL REPRESENTATIVE: Jacobson, Price, Holman & Stern, PLLC
NUMBER OF CLAIMS: 3
EXEMPLARY CLAIM: 1
LINE COUNT: 718
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A compound of formula (I): ##STR1## in which R.sub.1 represents a hydrogen atom or a straight or branched (C.sub.1 -C.sub.4)alkyl group;

and

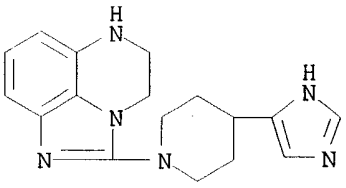
A represents a 5,6-dihydro-4H-imidazo[4,5,1-ij]quinol-2-yl group, a 4,5-dihydroimidazo[1,5,4-de][1,4]benzoxazin-2-yl group, a 4-methyl-4,5-dihydroimidazo[1,5,4-de][1,4]benzoxazin-2-yl group, a 4-phenyl-4,5-dihydroimidazo[1,5,4-de][1,4]benzoxazin-2-yl group, a 4-phenylmethyl-4,5-dihydroimidazo[1,5,4-de][1,4]benzoxazin-2-yl group, a 5-methyl-4,5-dihydroimidazo[1,5,4-de][1,4]benzoxazin-2-yl group, a 5,6-dihydro-4H-imidazo[1,5,4-de]quinoxalin-2-yl group, a 6-oxo-5,6-dihydro-4H-imidazo[4,5,1-ij]quinol-2-yl group, or a 5-methyl-4,5,6,7-tetrahydroimidazo[4,5,1-jk][1,4]benzodiazepin-2-yl group which may be unsubstituted or substituted in the 6-position by a phenylmethyl group;

or an addition salt thereof with a pharmaceutically acceptable acid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **163120-16-9P 163120-26-1P 163120-32-9P**
163120-34-1P 163120-36-3P 163120-38-5P
163120-40-9P 163120-42-1P 163120-44-3P
(prepn. of imidazolylpiperidine derivs. as 5-HT3 and 5-HT4 receptor ligands)
RN 163120-16-9 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)

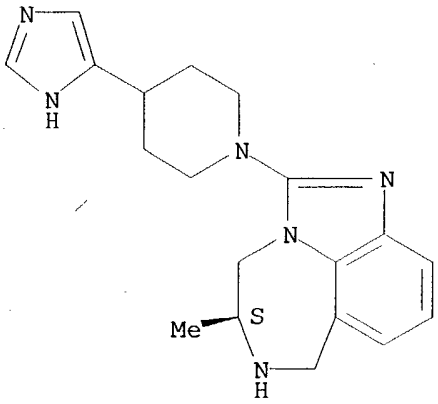


RN 163120-26-1 USPATFULL
CN 4H-Imidazo[1,5,4-de]quinoxaline, 5,6-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



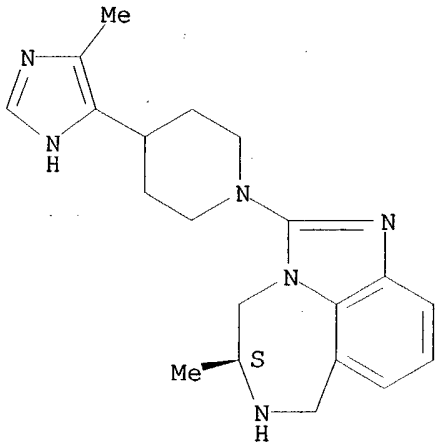
RN 163120-32-9 USPATFULL
CN Imidazo[4,5,1-jk][1,4]benzodiazepine, 4,5,6,7-tetrahydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-5-methyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



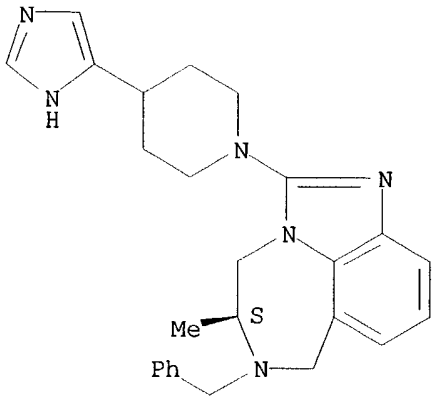
RN 163120-34-1 USPATFULL
CN Imidazo[4,5,1-jk][1,4]benzodiazepine, 4,5,6,7-tetrahydro-5-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



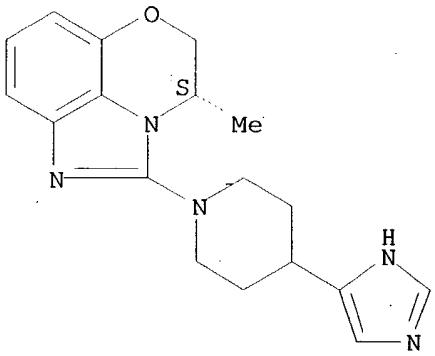
RN 163120-36-3 USPATFULL
CN Imidazo[4,5,1-jk][1,4]benzodiazepine, 4,5,6,7-tetrahydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-5-methyl-6-(phenylmethyl)-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



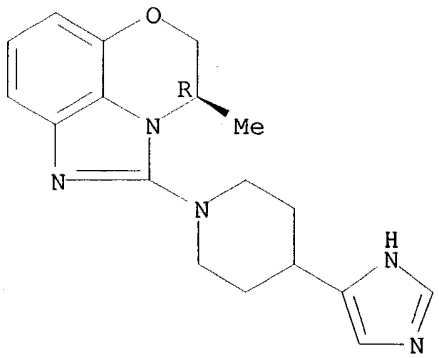
RN 163120-38-5 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



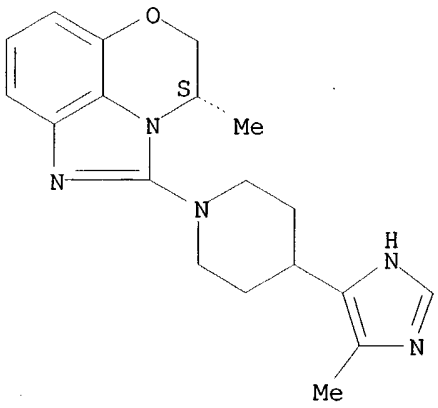
RN 163120-40-9 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



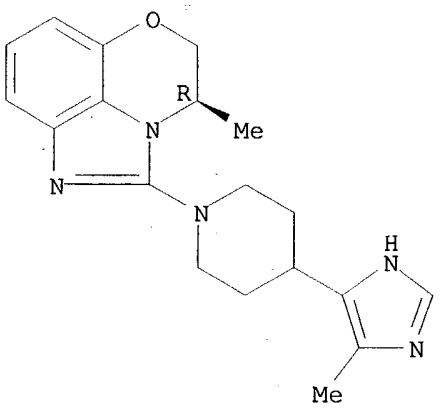
RN 163120-42-1 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

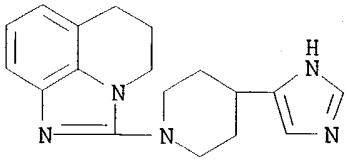


RN 163120-44-3 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (R)- (9CI) (CA INDEX NAME)

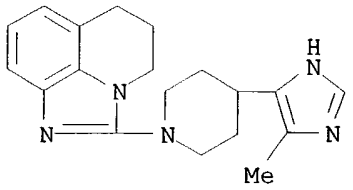
Absolute stereochemistry.



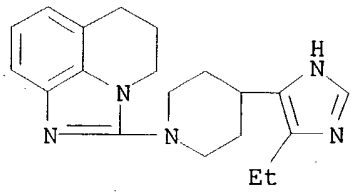
IT **163120-06-7P 163120-07-8P 163120-08-9P**
163120-09-0P 163120-11-4P 163120-13-6P
163120-15-8P 163120-17-0P 163120-19-2P
163120-21-6P 163120-22-7P 163120-23-8P
163120-25-0P 163120-27-2P 163120-29-4P
163120-30-7P 163120-31-8P 163120-33-0P
163120-35-2P 163120-37-4P 163120-39-6P
163120-41-0P 163120-43-2P 163120-45-4P
163120-46-5P 163120-47-6P
(prepn. of imidazolylpiperidine derivs. as 5-HT3 and 5-HT4 receptor ligands)
RN 163120-06-7 USPATFULL
CN 4H-Imidazo[4,5,1-ij]quinoline, 5,6-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



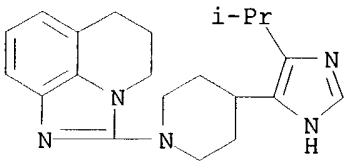
RN 163120-07-8 USPATFULL
CN 4H-Imidazo[4,5,1-ij]quinoline, 5,6-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 163120-08-9 USPATFULL
CN 4H-Imidazo[4,5,1-ij]quinoline, 2-[4-(5-ethyl-1H-imidazol-4-yl)-1-piperidinyl]-5,6-dihydro- (9CI) (CA INDEX NAME)



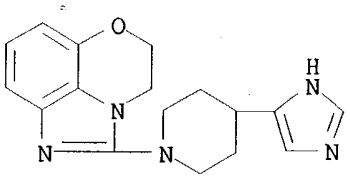
RN 163120-09-0 USPATFULL
CN 4H-Imidazo[4,5,1-ij]quinoline, 5,6-dihydro-2-[4-[5-(1-methylethyl)-1H-imidazol-4-yl]-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 163120-11-4 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

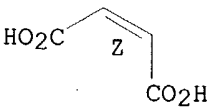
CRN 163120-10-3
CMF C17 H19 N5 O



CM 2

CRN 110-16-7
CMF C4 H4 O4
CDES 2:Z

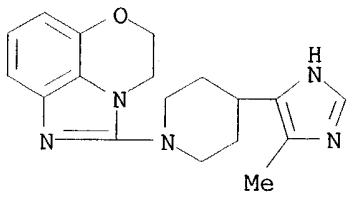
Double bond geometry as shown.



RN 163120-13-6 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

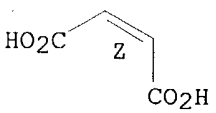
CRN 163120-12-5
CMF C18 H21 N5 O



CM 2

CRN 110-16-7
CMF C4 H4 O4
CDES 2:Z

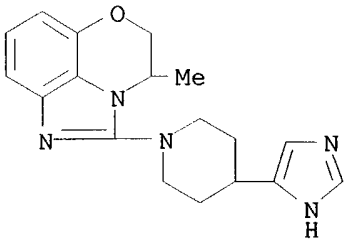
Double bond geometry as shown.



RN 163120-15-8 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

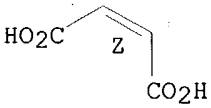
CRN 163120-14-7
CMF C18 H21 N5 O



CM 2

CRN 110-16-7
CMF C4 H4 O4
CDES 2:Z

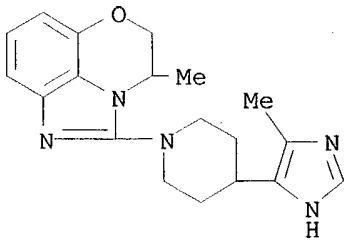
Double bond geometry as shown.



RN 163120-17-0 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

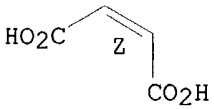
CRN 163120-16-9
CMF C19 H23 N5 O



CM 2

CRN 110-16-7
CMF C4 H4 O4
CDES 2:Z

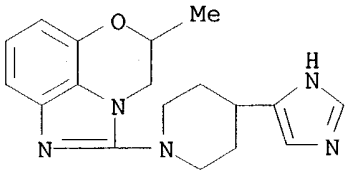
Double bond geometry as shown.



RN 163120-19-2 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-5-methyl-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

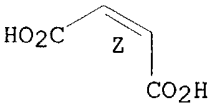
CRN 163120-18-1
CMF C18 H21 N5 O



CM 2

CRN 110-16-7
CMF C4 H4 O4
CDES 2:Z

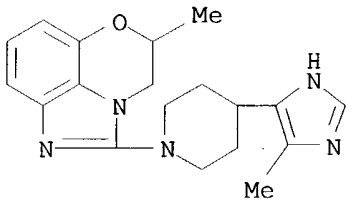
Double bond geometry as shown.



RN 163120-21-6 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-5-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, ethanedioate (1:2) (9CI) (CA INDEX NAME)

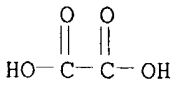
CM 1

CRN 163120-20-5
CMF C19 H23 N5 O



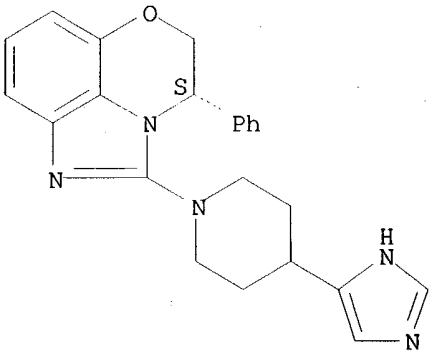
CM 2

CRN 144-62-7
CMF C2 H2 O4



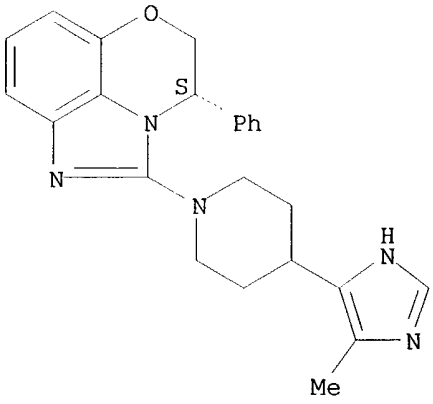
RN 163120-22-7 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-phenyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 163120-23-8 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-4-phenyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

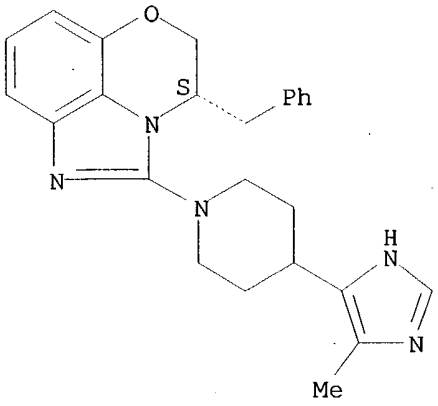


RN 163120-25-0 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-4-(phenylmethyl)-, (4S)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 163120-24-9
CMF C25 H27 N5 O
CDES 1:S

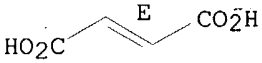
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

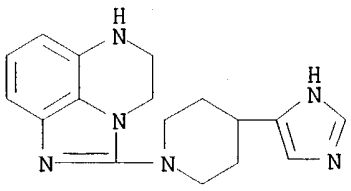
Double bond geometry as shown.



RN 163120-27-2 USPATFULL
CN 4H-Imidazo[1,5,4-de]quinoxaline, 5,6-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-, ethanedioate (2:3) (9CI) (CA INDEX NAME)

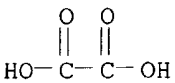
CM 1

CRN 163120-26-1
CMF C17 H20 N6



CM 2

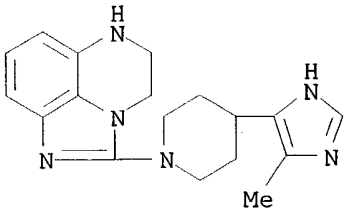
CRN 144-62-7
CMF C2 H2 O4



RN 163120-29-4 USPATFULL
CN 4H-Imidazo[1,5,4-de]quinoxaline, 5,6-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

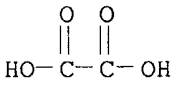
CM 1

CRN 163120-28-3
CMF C18 H22 N6

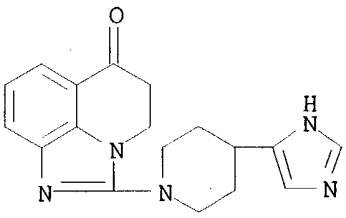


CM 2

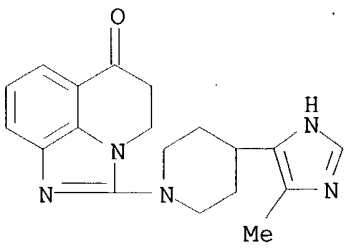
CRN 144-62-7
CMF C2 H2 O4



RN 163120-30-7 USPATFULL
CN 6H-Imidazo[4,5,1-ij]quinolin-6-one, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 163120-31-8 USPATFULL
CN 6H-Imidazo[4,5,1-ij]quinolin-6-one, 4,5-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)

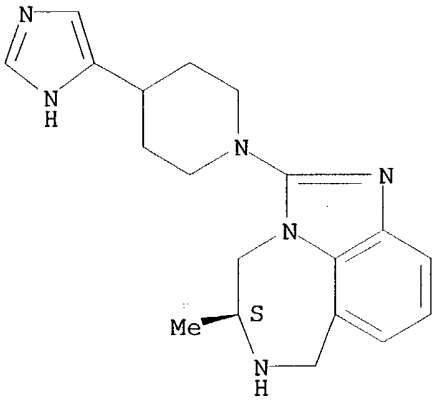


RN 163120-33-0 USPATFULL
CN Imidazo[4,5,1-jk][1,4]benzodiazepine, 4,5,6,7-tetrahydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-5-methyl-, (5S)-, (2Z)-2-butenedioate (1:3) (9CI) (CA INDEX NAME)

CM 1

CRN 163120-32-9
CMF C19 H24 N6
CDES 1:S

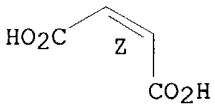
Absolute stereochemistry.



CM 2

CRN 110-16-7
CMF C4 H4 O4
CDES 2:Z

Double bond geometry as shown.

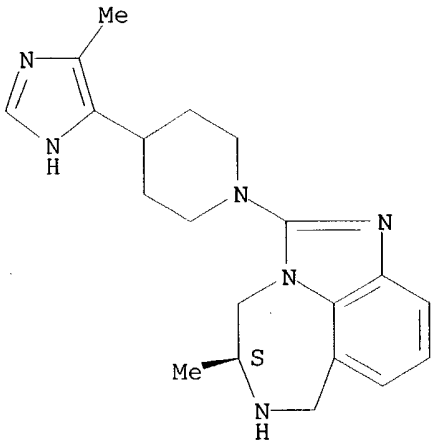


RN 163120-35-2 USPATFULL
CN Imidazo[4,5,1-jk][1,4]benzodiazepine, 4,5,6,7-tetrahydro-5-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (5S)-, (2E)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 163120-34-1
CMF C20 H26 N6
CDES 1:S

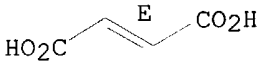
Absolute stereochemistry.



CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

Double bond geometry as shown.

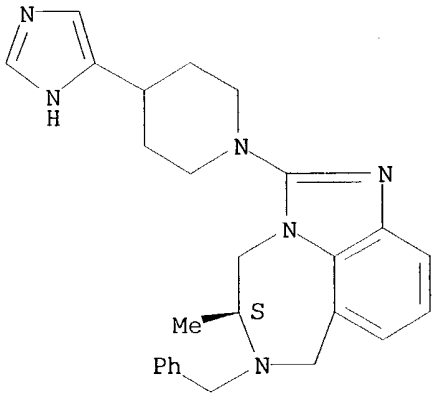


RN 163120-37-4 USPATFULL
CN Imidazo[4,5,1-jk][1,4]benzodiazepine, 4,5,6,7-tetrahydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-5-methyl-6-(phenylmethyl)-, (5S)-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 163120-36-3
CMF C26 H30 N6
CDES 1:S

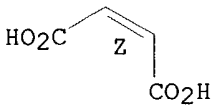
Absolute stereochemistry.



CM 2

CRN 110-16-7
CMF C4 H4 O4
CDES 2:Z

Double bond geometry as shown.

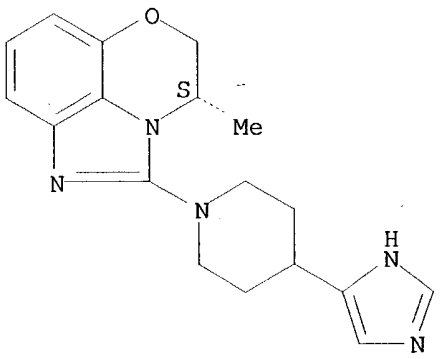


RN 163120-39-6 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl-, (4S)-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 163120-38-5
CMF C18 H21 N5 O
CDES 1:S

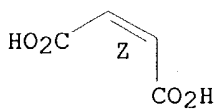
Absolute stereochemistry.



CM 2

CRN 110-16-7
CMF C4 H4 O4
CDES 2:Z

Double bond geometry as shown.

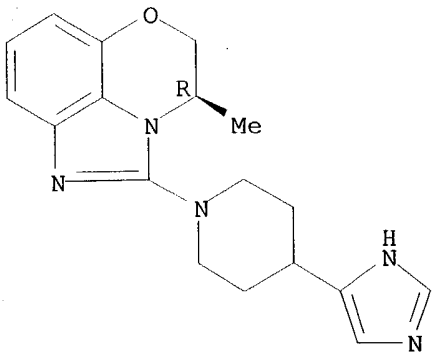


RN 163120-41-0 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl-, (4R)-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 163120-40-9
CMF C18 H21 N5 O
CDES 1:R

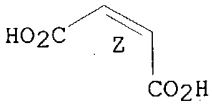
Absolute stereochemistry.



CM 2

CRN 110-16-7
CMF C4 H4 O4
CDES 2:Z

Double bond geometry as shown.

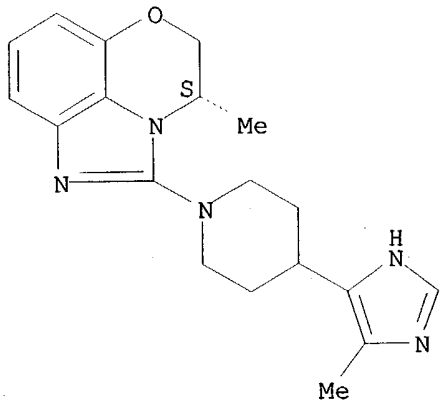


RN 163120-43-2 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (4S)-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 163120-42-1
CMF C19 H23 N5 O
CDES 1:S

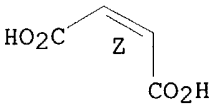
Absolute stereochemistry.



CM 2

CRN 110-16-7
CMF C4 H4 O4
CDES 2:Z

Double bond geometry as shown.

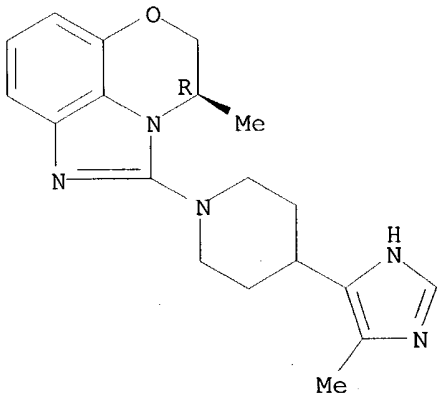


RN 163120-45-4 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-4-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (4R)-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 163120-44-3
CMF C19 H23 N5 O
CDES 1:R

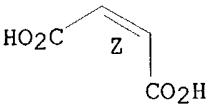
Absolute stereochemistry.



CM 2

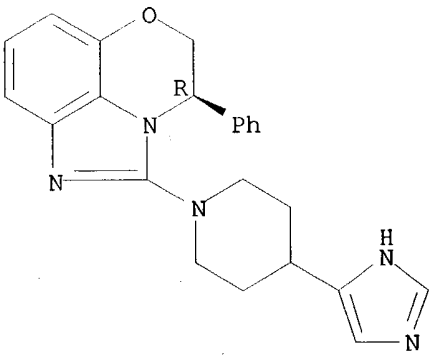
CRN 110-16-7
CMF C4 H4 O4
CDES 2:Z

Double bond geometry as shown.



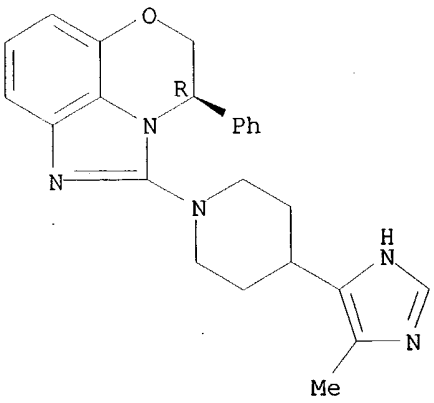
RN 163120-46-5 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-5-phenyl-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 163120-47-6 USPATFULL
CN Imidazo[1,5,4-de][1,4]benzoxazine, 4,5-dihydro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-4-phenyl-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L10 ANSWER 36 OF 38 USPATFULL on STN
ACCESSION NUMBER: 95:75971 USPATFULL
TITLE: Quinazolines derivatives for enhancing antitumor

activity

INVENTOR(S): Coe, Jotham W., Mystic, CT, United States
Fliri, Anton F. J., Norwich, CT, United States
Kaneko, Takushi, Guilford, CT, United States
Larson, Eric R., Mystic, CT, United States

PATENT ASSIGNEE(S): Pfizer Inc., New York, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5444062		19950822	
APPLICATION INFO.:	US 1993-50047		19930505	(8)
	WO 1991-US7254		19911010	
			19930505	PCT 371 date
			19930505	PCT 102(e) date

RELATED APPLN. INFO.: Continuation of Ser. No. US 1990-609986, filed on 6 Nov 1990, now abandoned

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Shah, Mukund J.
ASSISTANT EXAMINER: Grumbling, Matthew V.
LEGAL REPRESENTATIVE: Richardson, Peter C.Benson Gregg C.
NUMBER OF CLAIMS: 27
EXEMPLARY CLAIM: 1
LINE COUNT: 1512

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

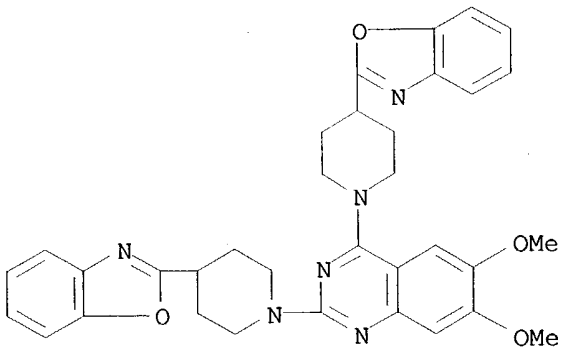
AB 2,4-Diaminoquinazoline derivatives as potentiators of chemotherapeutic agents in the treatment of cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **142716-75-4P**
(prepn. of, as P-glycoprotein inhibitor)

RN 142716-75-4 USPATFULL

CN Quinazoline, 2,4-bis[4-(2-benzoxazolyl)-1-piperidinyl]-6,7-dimethoxy- (9CI) (CA INDEX NAME)



L10 ANSWER 37 OF 38 USPATFULL on STN

ACCESSION NUMBER: 95:45610 USPATFULL

TITLE: Piperidine derivatives, their preparation and their application in therapeutics

INVENTOR(S): Jegham, Samir, Argenteuil, France
Defosse, Gerard, Paris, France
Purcell, Thomas, Montfort L'Amaury, France

PATENT ASSIGNEE(S): Synthelabo, Le Plessis Robinson, France (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5418241		19950523
APPLICATION INFO.:	US 1993-127058		19930927 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	FR 1992-11550	19920928

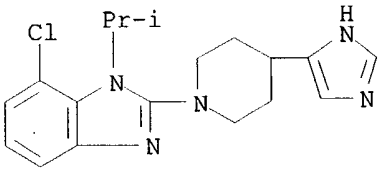
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Chang, Celia
LEGAL REPRESENTATIVE: Jacobson, Price, Holman & Stern
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
LINE COUNT: 516
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides a compound which is a piperidine derivative of formula (I) ##STR1## in which R.sub.1 is hydrogen or straight or branched (C.sub.1 -C.sub.6) alkyl, R.sub.2 is hydrogen or straight or branched (C.sub.1 -C.sub.8) alkyl, Z and Z.sub.1 which may be the same or different, each is hydrogen, chlorine, hydroxyl, amino, nitro, hydroxymethyl, (C.sub.1 -C.sub.2) alkyl, (C.sub.1 -C.sub.8) alkoxy straight or branched (C.sub.1 -C.sub.5) alkoxycarbonyl or aryl (C.sub.1 -C.sub.2) alkoxy, Z is in position 4, 6 or 7 and Z and Z.sub.1 cannot both be hydrogen, or its addition salt with a pharmaceutically acceptable acid and its therapeutic application.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **155596-41-1P 155596-42-2P 155596-43-3P**
155596-45-5P 155596-47-7P 155596-49-9P
155596-50-2P 155596-51-3P 155596-53-5P
155596-54-6P 155596-55-7P 155596-57-9P
155596-59-1P 155596-60-4P 155596-61-5P
155596-62-6P 155596-64-8P 155596-66-0P
155596-67-1P 155596-68-2P
(prepn. of, as serotoninergic receptor antagonist)
RN 155596-41-1 USPATFULL
CN 1H-Benzimidazole, 7-chloro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

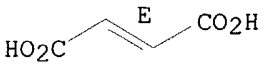
CRN 155596-40-0
CMF C18 H22 Cl N5



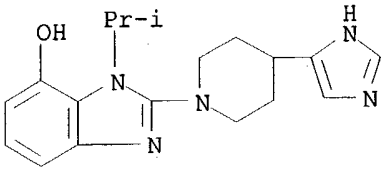
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

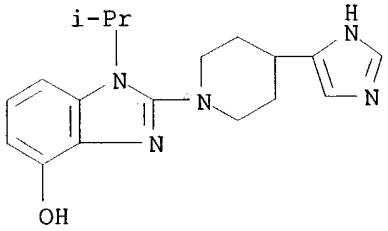
Double bond geometry as shown.



RN 155596-42-2 USPATFULL
CN 1H-Benzimidazol-7-ol, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)- (9CI) (CA INDEX NAME)



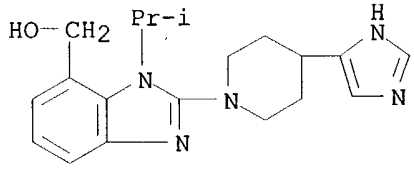
RN 155596-43-3 USPATFULL
CN 1H-Benzimidazol-4-ol, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 155596-45-5 USPATFULL
CN 1H-Benzimidazole-7-methanol, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)-, (2E)-2-butenedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

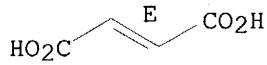
CRN 155596-44-4
CMF C19 H25 N5 O



CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

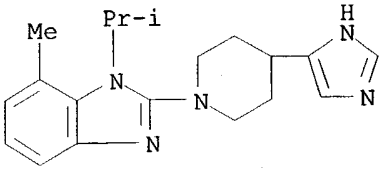
Double bond geometry as shown.



RN 155596-47-7 USPATFULL
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-7-methyl-1-(1-methylethyl)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

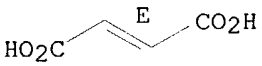
CRN 155596-46-6
CMF C19 H25 N5



CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

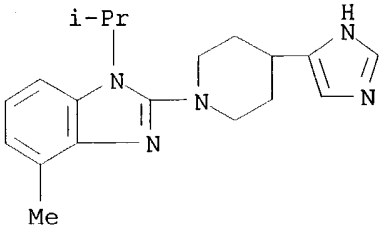
Double bond geometry as shown.



RN 155596-49-9 USPATFULL
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methyl-1-(1-methylethyl)-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

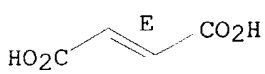
CRN 155596-48-8
CMF C19 H25 N5



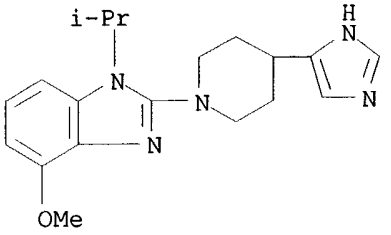
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

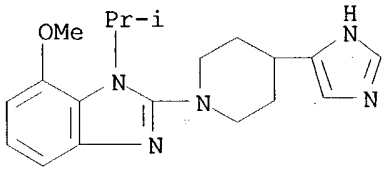
Double bond geometry as shown.



RN 155596-50-2 USPATFULL
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-4-methoxy-1-(1-methylethyl)- (9CI) (CA INDEX NAME)



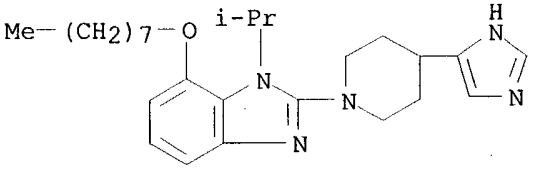
RN 155596-51-3 USPATFULL
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-7-methoxy-1-(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 155596-53-5 USPATFULL
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)-7-(octyloxy)-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

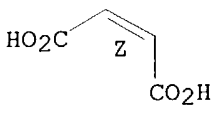
CRN 155596-52-4
CMF C26 H39 N5 O



CM 2

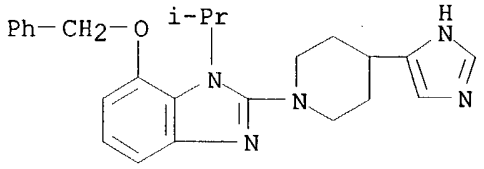
CRN 110-16-7
CMF C4 H4 O4
CDES 2:Z

Double bond geometry as shown.



RN 155596-54-6 USPATFULL

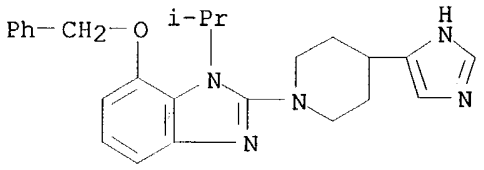
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)-7-(phenylmethoxy)- (9CI) (CA INDEX NAME)



RN 155596-55-7 USPATFULL
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)-7-(phenylmethoxy)-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

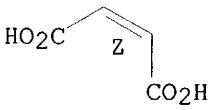
CRN 155596-54-6
CMF C25 H29 N5 O



CM 2

CRN 110-16-7
CMF C4 H4 O4
CDES 2:Z

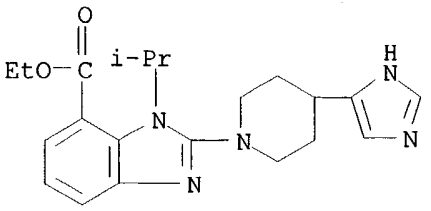
Double bond geometry as shown.



RN 155596-57-9 USPATFULL
CN 1H-Benzimidazole-7-carboxylic acid, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)-, ethyl ester, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

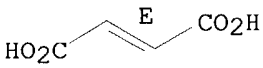
CRN 155596-56-8
CMF C21 H27 N5 O2



CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

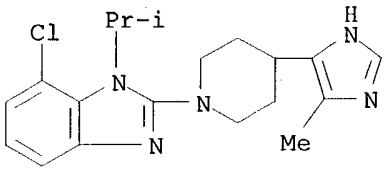
Double bond geometry as shown.



RN 155596-59-1 USPATFULL
CN 1H-Benzimidazole, 7-chloro-1-(1-methylethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

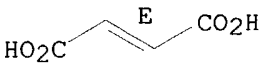
CRN 155596-58-0
CMF C19 H24 Cl N5



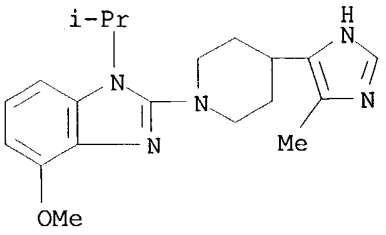
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

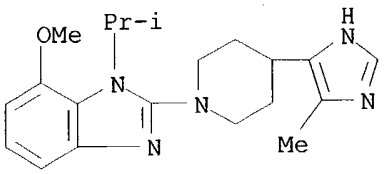
Double bond geometry as shown.



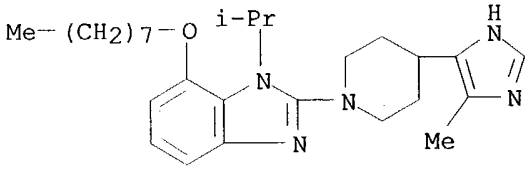
RN 155596-60-4 USPATFULL
CN 1H-Benzimidazole, 4-methoxy-1-(1-methylethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 155596-61-5 USPATFULL
CN 1H-Benzimidazole, 7-methoxy-1-(1-methylethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



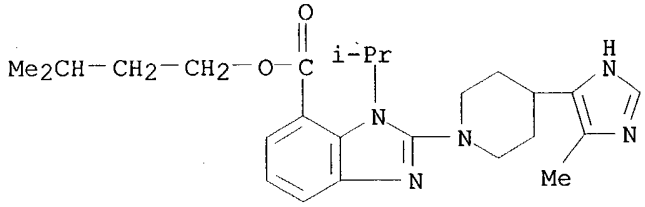
RN 155596-62-6 USPATFULL
CN 1H-Benzimidazole, 1-(1-methylethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-7-(octyloxy)- (9CI) (CA INDEX NAME)



RN 155596-64-8 USPATFULL
CN 1H-Benzimidazole-7-carboxylic acid, 1-(1-methylethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, 3-methylbutyl ester, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 155596-63-7
CMF C25 H35 N5 O2

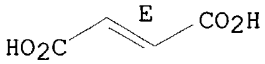


CM 2

CRN 110-17-8
CMF C4 H4 O4

CDES 2:E

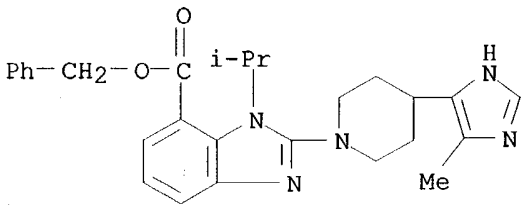
Double bond geometry as shown.



RN 155596-66-0 USPATFULL
CN 1H-Benzimidazole-7-carboxylic acid, 1-(1-methylethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, phenylmethyl ester, (2E)-2-butenedioate (2:3) (9CI) (CA INDEX NAME)

CM 1

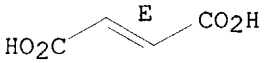
CRN 155596-65-9
CMF C27 H31 N5 O2



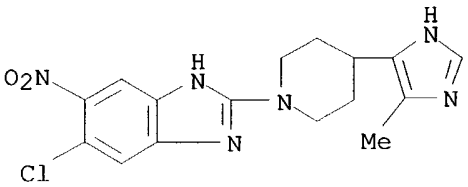
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

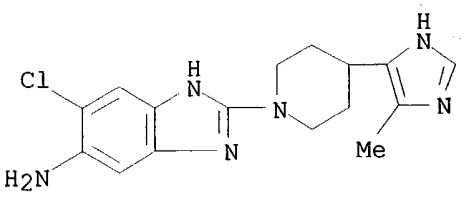
Double bond geometry as shown.



RN 155596-67-1 USPATFULL
CN 1H-Benzimidazole, 5-chloro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-6-nitro- (9CI) (CA INDEX NAME)



RN 155596-68-2 USPATFULL
CN 1H-Benzimidazol-5-amine, 6-chloro-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

L10 ANSWER 38 OF 38 USPATFULL on STN

ACCESSION NUMBER:	94:5884 USPATFULL
TITLE:	Piperidine derivatives, their preparation and their therapeutic application
INVENTOR(S):	Jegham, Samir, Franconville, France DeFosse, Gerard, Paris, France Purcell, Thomas, Montfort-l'Amaury, France Schoemaker, Johannes, Gif-sur-Yvettte, France
PATENT ASSIGNEE(S):	Synthelabo, Le Plessis-Robinson, France (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5280030		19940118	
APPLICATION INFO.:	US 1992-862376		19920402	(7)

	NUMBER	DATE
PRIORITY INFORMATION:	FR 1991-4009	19910403

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Ivy, C. Warren
ASSISTANT EXAMINER:	Chang, Celia
LEGAL REPRESENTATIVE:	Wegner, Cantor, Mueller & Player
NUMBER OF CLAIMS:	7
EXEMPLARY CLAIM:	1
LINE COUNT:	600

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

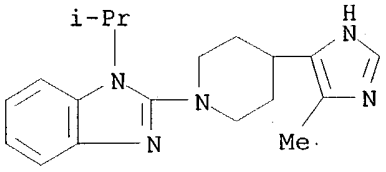
AB A compound which is a piperidine derivative of general formula (I) ##STR1## in which R.sub.1 represents a hydrogen atom, a linear or branched (C.sub.1-6)alkyl group or a cyclo(C.sub.3-8)alkyl group, X represents an oxygen atom, a sulphur atom or a group of general formula N--R.sub.3 in which R.sub.3 is a hydrogen atom, or a linear or branched (C.sub.1-8)alkyl, cyclo(C.sub.3-6)alkyl, cyclo(C.sub.3-6)alkylmethyl, (C.sub.1-4)alkoxy-(C.sub.1-4)alkyl, phenyl, pyridin-4-yl, pyridin-3-yl, pyridin-4-ylmethyl or pyridin-3-ylmethyl group and Z represents a hydrogen or fluorine atom and acid addition salts thereof with pharmaceutically acceptable acids, can be used for the treatment and prevention of disorders in which 5-HT receptors are involved.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

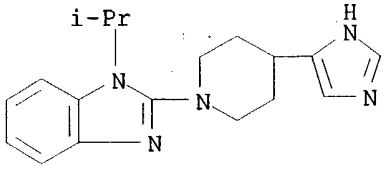
IT **146365-53-9P 146365-54-0P 146365-56-2P**
146365-58-4P 146365-60-8P 146365-61-9P
146365-62-0P 146365-64-2P 146365-65-3P
146365-66-4P 146365-67-5P 146365-69-7P
146365-71-1P 146365-72-2P 146365-74-4P
146365-75-5P 146365-77-7P 146365-79-9P
146365-80-2P 146365-82-4P 146365-83-5P

146365-85-7P 146365-86-8P 146365-88-0P
146365-90-4P 146365-91-5P 146365-92-6P
146365-93-7P 146365-95-9P 146365-96-0P
146365-97-1P 146365-98-2P 146365-99-3P
146395-69-9P
(prepn. of, as 5-HT receptor ligand)

RN 146365-53-9 USPATFULL
CN 1H-Benzimidazole, 1-(1-methylethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



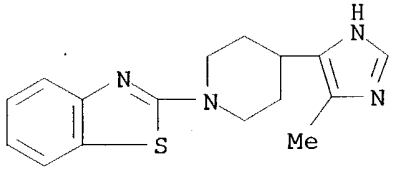
RN 146365-54-0 USPATFULL
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 146365-56-2 USPATFULL
CN Benzothiazole, 2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

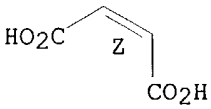
CRN 146365-55-1
CMF C16 H18 N4 S



CM 2

CRN 110-16-7
CMF C4 H4 O4
CDES 2:Z

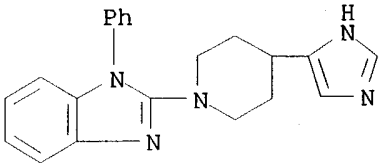
Double bond geometry as shown.



RN 146365-58-4 USPATFULL
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-phenyl-, (2E)-2-butenedioate (2:3) (9CI) (CA INDEX NAME)

CM 1

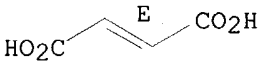
CRN 146365-57-3
CMF C21 H21 N5



CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

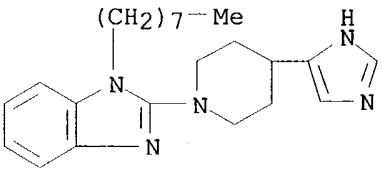
Double bond geometry as shown.



RN 146365-60-8 USPATFULL
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-octyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

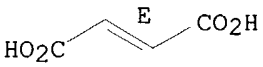
CRN 146365-59-5
CMF C23 H33 N5



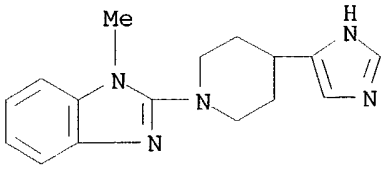
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

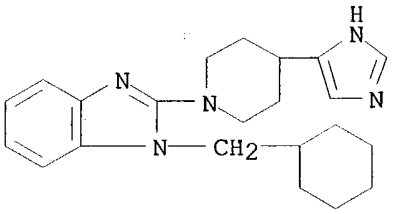
Double bond geometry as shown.



RN 146365-61-9 USPATFULL
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-methyl- (9CI) (CA INDEX NAME)



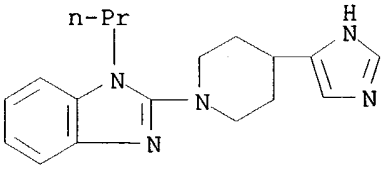
RN 146365-62-0 USPATFULL
CN 1H-Benzimidazole, 1-(cyclohexylmethyl)-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 146365-64-2 USPATFULL
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-propyl-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

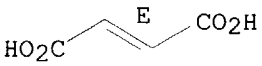
CRN 146365-63-1
CMF C18 H23 N5



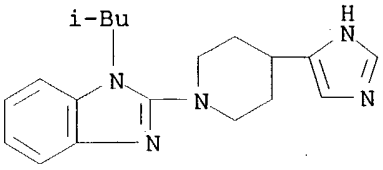
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

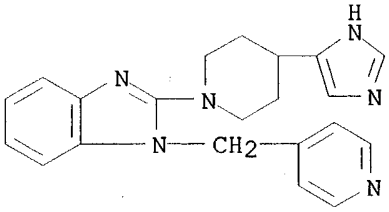
Double bond geometry as shown.



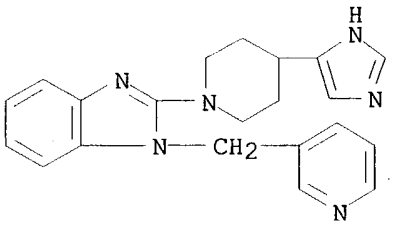
RN 146365-65-3 USPATFULL
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(2-methylpropyl)- (9CI) (CA INDEX NAME)



RN 146365-66-4 USPATFULL
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(4-pyridinylmethyl)- (9CI) (CA INDEX NAME)



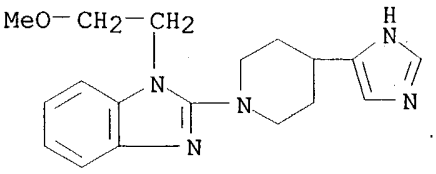
RN 146365-67-5 USPATFULL
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(3-pyridinylmethyl)- (9CI) (CA INDEX NAME)



RN 146365-69-7 USPATFULL
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(2-methoxyethyl)-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

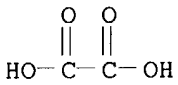
CM 1

CRN 146365-68-6
CMF C18 H23 N5 O



CM 2

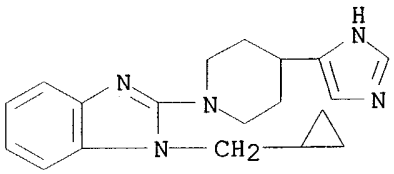
CRN 144-62-7
CMF C2 H2 O4



RN 146365-71-1 USPATFULL
CN 1H-Benzimidazole, 1-(cyclopropylmethyl)-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

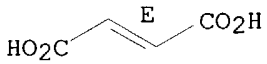
CRN 146365-70-0
CMF C19 H23 N5



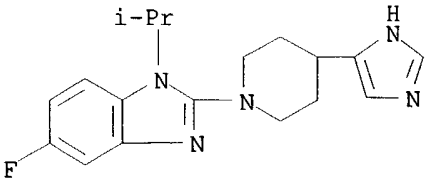
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

Double bond geometry as shown.



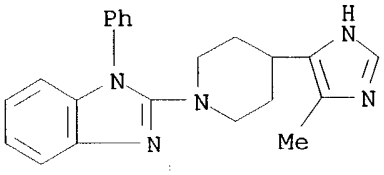
RN 146365-72-2 USPATFULL
CN 1H-Benzimidazole, 5-fluoro-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 146365-74-4 USPATFULL
CN 1H-Benzimidazole, 2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-1-phenyl-, (2E)-2-butenedioate (2:3) (9CI) (CA INDEX NAME)

CM 1

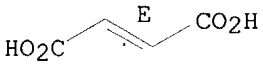
CRN 146365-73-3
CMF C22 H23 N5



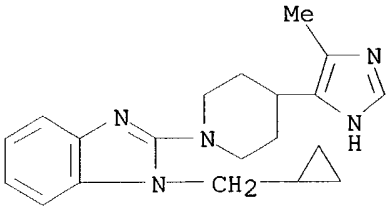
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

Double bond geometry as shown.



RN 146365-75-5 USPATFULL
CN 1H-Benzimidazole, 1-(cyclopropylmethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)

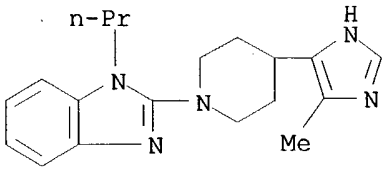


RN 146365-77-7 USPATFULL
CN 1H-Benzimidazole, 2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-1-propyl-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 146365-76-6

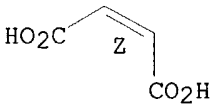
CMF C19 H25 N5



CM 2

CRN 110-16-7
CMF C4 H4 O4
CDES 2:Z

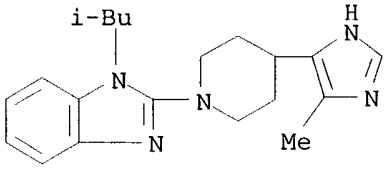
Double bond geometry as shown.



RN 146365-79-9 USPATFULL
CN 1H-Benzimidazole, 2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-1-(2-methylpropyl)-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

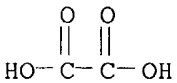
CM 1

CRN 146365-78-8
CMF C20 H27 N5

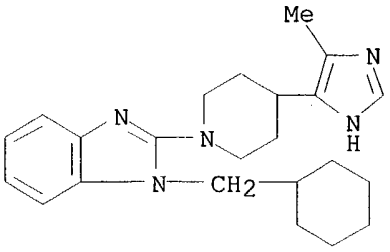


CM 2

CRN 144-62-7
CMF C2 H2 O4



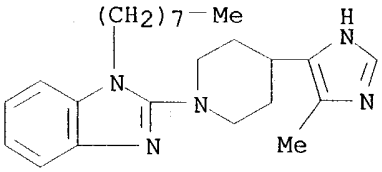
RN 146365-80-2 USPATFULL
CN 1H-Benzimidazole, 1-(cyclohexylmethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 146365-82-4 USPATFULL
CN 1H-Benzimidazole, 2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-1-octyl-, (2E)-2-butenedioate (2:5) (9CI) (CA INDEX NAME)

CM 1

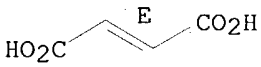
CRN 146365-81-3
CMF C24 H35 N5



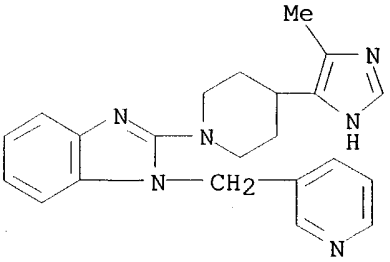
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

Double bond geometry as shown.



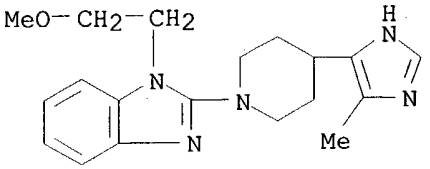
RN 146365-83-5 USPATFULL
CN 1H-Benzimidazole, 2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-1-(3-pyridinylmethyl)- (9CI) (CA INDEX NAME)



RN 146365-85-7 USPATFULL
CN 1H-Benzimidazole, 1-(2-methoxyethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

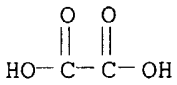
CM 1

CRN 146365-84-6
CMF C19 H25 N5 O

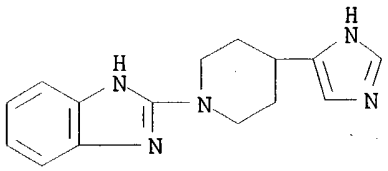


CM 2

CRN 144-62-7
CMF C2 H2 O4



RN 146365-86-8 USPATFULL
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-, dihydrochloride (9CI) (CA INDEX NAME)

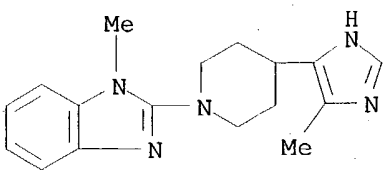


●2 HCl

RN 146365-88-0 USPATFULL
CN 1H-Benzimidazole, 1-methyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, ethanedioate (2:1) (9CI) (CA INDEX NAME)

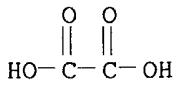
CM 1

CRN 146365-87-9
CMF C17 H21 N5



CM 2

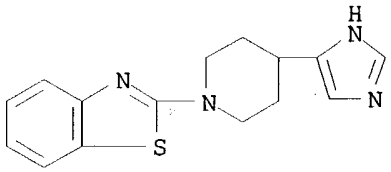
CRN 144-62-7
CMF C2 H2 O4



RN 146365-90-4 USPATFULL
CN Benzothiazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

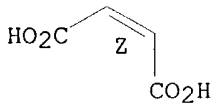
CRN 146365-89-1
CMF C15 H16 N4 S



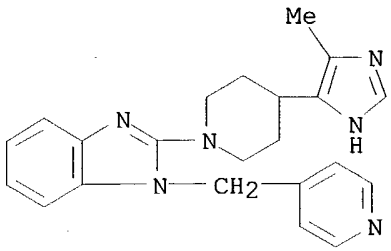
CM 2

CRN 110-16-7
CMF C4 H4 O4
CDES 2:Z

Double bond geometry as shown.

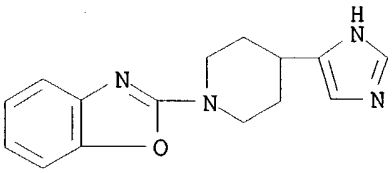


RN 146365-91-5 USPATFULL
CN 1H-Benzimidazole, 2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-1-(4-pyridinylmethyl)- (9CI) (CA INDEX NAME)

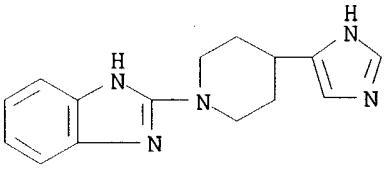


RN 146365-92-6 USPATFULL
CN Benzoxazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX

NAME)



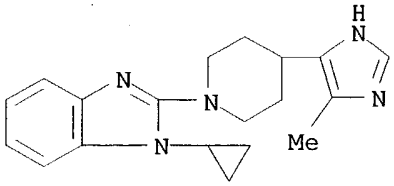
RN 146365-93-7 USPATFULL
CN 1H-Benzimidazole, 2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 146365-95-9 USPATFULL
CN 1H-Benzimidazole, 1-cyclopropyl-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]-, (2E)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

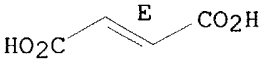
CRN 146365-94-8
CMF C19 H23 N5



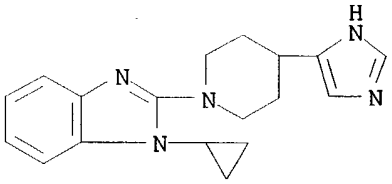
CM 2

CRN 110-17-8
CMF C4 H4 O4
CDES 2:E

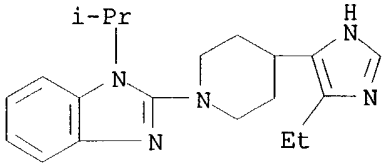
Double bond geometry as shown.



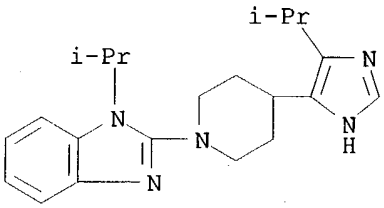
RN 146365-96-0 USPATFULL
CN 1H-Benzimidazole, 1-cyclopropyl-2-[4-(1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



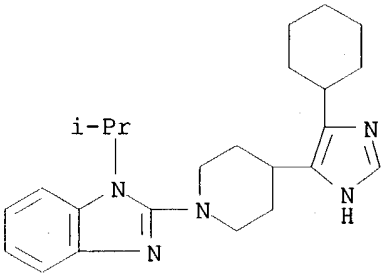
RN 146365-97-1 USPATFULL
CN 1H-Benzimidazole, 2-[4-(5-ethyl-1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)- (9CI) (CA INDEX NAME)



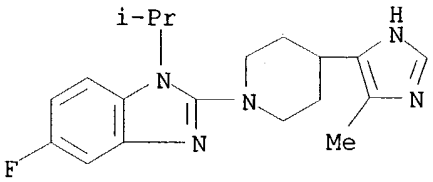
RN 146365-98-2 USPATFULL
CN 1H-Benzimidazole, 1-(1-methylethyl)-2-[4-[5-(1-methylethyl)-1H-imidazol-4-yl]-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 146365-99-3 USPATFULL
CN 1H-Benzimidazole, 2-[4-(5-cyclohexyl-1H-imidazol-4-yl)-1-piperidinyl]-1-(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 146395-69-9 USPATFULL
CN 1H-Benzimidazole, 5-fluoro-1-(1-methylethyl)-2-[4-(5-methyl-1H-imidazol-4-yl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



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